STOCKS AND THE STOCK MARKET

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SCOPE AND FUNCTIONS OF THE STOCK MARKET

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With the development of large-scale machine production it was only natural that there should be a transition from the system of private partnership to that of corporate organization, depending for its financial existence and support on the sale of bonds and stocks. Through the corporate form of organization it became possible to combine the small savings of the thousands into huge sums, which could then be given a directing force by the great captains of finance and industry. The rate at which stocks and bonds have come to represent the wealth of the world during the past two decades has been so prodigious that our stock exchange markets may be said to represent the pulse of our economic life. As Mr. Charles Duguid so admirably says, in his work on "The Stock Exchange": "The institution may be defined as the nerve center of the politics and finances of nations, because in this market all that makes history is focused and finds instantaneous expression. It is worthy of being defined as the barometer of their prosperity and adversity, for a glance at the tone of this market, whose wares are more mercurial than those of any other mart, suffices to indicate their condition."

Numerous authors and statisticians have attempted to explain the relative importance of stocks and bonds in the world's wealth. Of these attempts that of Mr. Charles A. Conant deserves special mention. In an article on "The World's Wealth in Negotiable Securities," published in the "Atlantic Monthly" for January, 1908, Mr. Conant made a detailed examination of the subject, and while admitting that it is impossible to secure sufficient data to arrive at a conclusion with absolute precision, he found that the total visible outstanding securities issued by American corporations aggregated, on June 30, 1905, the enormous total of $34,514,351,382. Of this amount $21,023,392,955 represents the par value of stocks, and $13,490,958,427 the par value of bonds. These conclusions are within conservative limits, because, as Mr. Conant explains, his inves-

tigation did not permit the searching out of all small local corporations. Since 1905 the aggregate has been very materially increased, since as regards New York Stock Exchange securities alone there has been added from six hundred million to over one billion dollars worth of new securities annually. This enormous mass of securities is distributed over the various leading types of corporations as shown in the table on the next page.

Comparing this enormous total of American stocks and bonds with the total value of the country's physical property, placed by the Bureau of Census in 1904 at $107,104,192,410, it seems that securities represent nearly one-third of the nation's wealth. It is apparent, however, that a considerable proportion of these securities is owned by holding companies, which are themselves represented by securities. There is, thus, a duplication of the same capital, which must be eliminated in order to ascertain the proportion which security values bear to the total value of the country's wealth. Mr. Conant's figures show that such inter-corporate holdings of securities aggregated, in 1905, approximately $10,120,418,699, thus leaving the net par value of American stocks and bonds at $24,393,932,683, or approximately 23 per cent of the nation's wealth. These conclusions are not vitiated if we take into account the market value of such securities, because on June 30, 1905, the market value of the thirty-four billion dollars worth of securities amounted to nearly thirty-five and one-half billion dollars.

The Distribution of Stock Ownership

Quite as astonishing as the enormous amount of the country's wealth represented by stocks and bonds, is the wide distribution of ownership. In 1903 the author published an article on the distribution of stock holdings in American railways, in The Annals of the American Academy, in which he showed that the number of persons who were direct owners of stock was very much larger than was generally supposed. Since that article was published the number of stockholders in American corporations has strikingly increased. Thus the "Journal of Commerce and Commercial Bulletin," recently collected official statistics for 110 of the largest corporations, with a total capital stock outstanding of $7,300,307,267. This investigation shows that the stock of these 110 corporations is owned by 626,984 stockholders, with an average holding of 116½ shares of the

PAR VALUE OF STOCKS AND BONDS OUTSTANDING JUNE 30, 1905.[1]

	Stocks.	Per cent of total.	Bonds.	Per cent of total.
(1) United States bonds	....	....	$895,158,340	6.64
(2) County and municipal bonds	....	....	2,141,437,283	15.87
(3) Steam railways	$6,554,557,051	31.18	6,024,449,023	44.66
(4) Street railways	1,761,571,812	8.38	1,455,520,159	10.79
(5) Banks	1,440,648,187	6.85	....	....
(6) Manufactures	5,522,774,073	26.27	1,274,347,290	9.45
(7) Mining, quarries and oil	2,982,835,544	14.19	314,883,914	2.33
(8) Telegraph and telephone companies	559,084,526	2.66	195,575,666	1.45
(9) All other corporations	2,201,921,762	10.47	1,189,586,752	8.81
Total	$21,023,392,955	100.00	$13,490,958,427	100.00

[1]**Charles A. Conant's "World's Wealth in Negotiable Securities," *Atlantic Monthly*, Vol. 101, page 98. This table has been abbreviated.**

par value of $100 each, or $11,650. The investigation further shows that in 1907, when quotations were unusually low, and when the public invaded Wall Street and found stocks upon the bargain counter, the total number of stockholders aggregated 639,836, with an average holding of 107⅞ shares, although the capitalization then only slightly exceeded $6,900,000,000.

The data offered by the "Journal of Commerce" becomes even more interesting if it be viewed separately for the railroads and industrials. Fifty-four out of the 110 corporations reporting are railroads. They showed a total outstanding capital of $4,157,008,136, owned by 288,160 stockholders, or an average of 5,336 stockholders for each company. During the preceding year, however, the capital stock, although aggregating only $3,875,000,000, was owned by 304,912 holders. The Pennsylvania Railroad, according to the "Journal's" figures, has 55,337 stockholders; the Atchison, 23,781; the Union Pacific, 19,075; the New Haven and Hartford, 16,311; New York Central, 16,292; the Great Northern, 14,307; the St. Paul, 12,475; the Southern Pacific, 11,238; the Southern Railway, 11,146; the Baltimore and Ohio, 10,610; and the Northern Pacific, 10,500.

In the case of industrials the "Journal of Commerce" furnishes data for fifty-six corporations, with a total outstanding capital of $3,143,299,131, and owned by 338,824 stockholders, or an average per corporation of 6,050. As compared with the railroads the industrials show a striking gain in the number of stockholders, there having been during the past year, for the 110 corporations under consideration, a decrease of 16,752 railroad stockholders, but an increase of 3,900 industrial stockholders. The American Telegraph and Telephone Company reports a gain during the last year of no fewer than 5,332 holders, the Westinghouse 4,486, Swift and Company 2,000, American Tobacco Company 868, and Borden's Condensed Milk 715. The United States Steel Corporation reports approximately 100,000 stock owners; the American Telegraph and Telephone Company, 31,702; the American Sugar Corporation, 18,517; the Western Union, 13,353; American Car and Foundry, 10,373; Swift and Company, 12,000; Pullman Company, 10,431; and the Westinghouse Company, 8,438.

The foregoing data becomes all the more important when it is remembered that the number of stockholders does not, in all cases,

represent individual holders, but in many cases includes corporations. One railway corporation may be the holder of a portion of the stock of another railway company, and may itself represent many stockholders. Or considerable blocks of such securities may be owned or held by trust companies, brokerage offices, life insurance companies, fire insurance companies, savings banks, and other investment companies, which in turn represent the investments or deposits of an enormous number of persons, many belonging to the middle and poorer classes. How far this process of subdivision must be carried in order accurately to determine the extent to which the population of the country is involved in the ownership of its corporate securities is difficult to judge. Suffice it to say that enormous blocks of securities are held in this way, and that this indirect form of investment is rapidly increasing.

More and more, also, there is a remarkable tendency for the investors of foreign countries, especially European, to enter foreign security markets in addition to their own. As has been well said, the security market is "undergoing the same internationalizing as commerce." In 1907-1908, British capital was invested in foreign securities to the extent of £2,693,738,000 and derived therefrom an income of £139,791,000, or $5^{20}/_{100}$ per cent. Over three billion dollars of British capital is invested at present in American railways, returning 125 million dollars annually in interest and dividends, to say nothing of the millions invested in our industrial and mining securities. The French holdings of foreign securities were estimated by M. Neymarck, as far back as 1900, to aggregate $6,240,000,000, and those of Germany were placed at $4,641,000,000, both of which figures have been greatly increased since that date.

The Stock Exchanges of the World

The enormous mass of corporate stocks and bonds, the wide distribution of their ownership among hundreds of thousands of persons of all classes, together with the increasing tendency to use such securities as collateral for loans, has necessitated the creation of a large number of stock exchanges in every important commercial country, where securities can be marketed with the greatest convenience and promptness. By far the majority of American and foreign security issues are quoted on organized stock exchanges,

and in many instances our leading corporations have their stocks and bonds listed, not only on several of the American stock exchanges, but also on the leading exchanges of foreign countries.

Stock exchanges may be of two kinds, either general, such as the London, New York, Paris and Berlin exchanges, where securities of all kinds are bought and sold; or special, such as the American exchanges at Salt Lake City and Colorado Springs, where only mining and a few local industrial stocks are listed. In a special market letter of March 8, 1910, Mr. Thomas Gibson has included a full list of those principal stock exchanges where all classes of securities are dealt in. To show how the world's stock exchanges have multiplied, because of the enormous increase of corporate securities, Mr. Gibson's list is given in full:

1. *United States*—New York, Boston, Philadelphia, Pittsburgh, Chicago, St. Louis, Kansas City, Denver, San Francisco, Los Angeles, Seattle, New Orleans and Baltimore.
2. *British Home Exchanges*—London, Birmingham, Liverpool, Manchester, Leeds, Bradford, Cardiff, Edinburgh, Glasgow and Dublin.
3. *British Empire*—In Canada: Montreal, Toronto and Vancouver. In Australia: Sydney, Melbourne, Adelaide, Perth, Kalgoorlie, Hobart, Lauceston, Ballarat, Newcastle, Brisbane, Maryborough and Charters Towers. In New Zealand: Christchurch, Wellington and Dunedin. In Straits Settlements: Singapore. In India: Calcutta, Bombay, Madras and Rangoon.
4. *Mexico*—Mexico City.
5. *South America*—In Argentina: Buenos Ayres. In Brazil: Rio de Janeiro and San Paulo. In Chili: Santiago and Valparaiso. In Peru: Lima. In Uruguay: Montevideo.
6. *Africa*—In Cape Colony: Cape Town and Port Elizabeth. In Egypt: Cairo and Alexandria. In Natal: Durban. In Transvaal: Johannesburg and Pretoria.
7. *Asia*—In Japan: Tokio and Yokahama. In China: Shanghai and Hong Kong.
8. *Europe (southern)*—In Austria: Vienna, Prague and Trieste. In Bulgaria: Sofia. In France: Paris, Lyons, Marseilles, Bordeaux and Lille. In Greece: Athens. In Italy: Milan, Genoa, Turin and Rome. In Hungary: Budapest. In

Portugal: Lisbon. In Roumania: Bucharest. In Spain: Madrid and Barcelona. In Servia: Belgrade. In Turkey: Constantinople.

9. *Europe (northern)*—In Belgium: Brussels and Antwerp. In Denmark: Copenhagen. In Germany: Berlin, Hamburg, Frankfort, Bremen, Breslau and Munich. In Holland: Amsterdam and Rotterdam. In Norway: Christiania. In Russia: St. Petersburg, Warsaw, Moscow and Odessa. In Sweden: Stockholm. In Switzerland: Geneva, Basle and Berne.

To an increasing extent capitalists are utilizing the services of foreign stock exchanges, since the investment field is no longer a local one, as formerly, but instead is being rapidly internationalized. "The modern systems of long distance telephony, telegraphy and cabling," as pointed out by Mr. Gibson, in his aforementioned letter, "have made it possible for investors to trade on any of the above-named stock markets at will." He goes on to say: "Investors living in London, Paris and New York have, of course, some advantage over those living in country towns. . . . Nevertheless, the affiliation of bankers, stock brokers, and arbitrageurs doing international businesses is so intimate that it is almost as easy for a resident of Carlisle, England, Reno, Nevada, or Florence, Italy, to deal in stocks on the Russian, Australian and Chinese stock exchanges as it is for them to trade on the stock exchanges in London, New York and Rome. British investors have had long experience in trading on foreign stock exchanges at long range, and German, Dutch and French investors are following their example at an increasing rate. This tendency of capitalists to look upon the whole world as an investment field, instead of the narrow limits of the locality in which they live, is rapidly increasing with the recognition of the theory of the geographical distribution of investment risks and is a factor in the development of international trade."

Functions of Stock Exchanges

According to the point of view, our large organized exchanges have been described by some as the political and financial nerve centers of nations and the barometers of national prosperity and adversity; and by others as "the bottomless pit, and as worse than all the hells." The latter description finds favor with people who view such markets solely from the standpoint of those who *foolishly*

or dishonestly abuse the facilities which are there afforded. The legitimate functions of every important branch of our business or political life are often shamefully abused or misused by fools or crooks, yet their mistakes or misdeeds do not disprove the utility of the institutions in question, but merely suggest a need for improvement and reform. Mr. Charles A. Conant, in speaking of the functions of stock exchanges, puts the matter well when he says:[2] "A moment's reflection might convince such persons that an institution which occupies so important a place in the mechanism of modern business must be a useful and necessary part of that mechanism; but reflection seems to have little part in the intellectual equipment of the assailants of organized markets. . . . The fact that the stock market is sometimes abused by people who go into it in a gambling spirit, who know nothing of its purposes and are incapable of understanding the mighty influences which dominate it, is no reason for considering it as a harmful excrescence on the body politic."

(1) In enumerating the services rendered by exchanges, chief importance must be given to the means they afford of readily transferring shares and bonds from hand to hand, an element which is vitally necessary to the creation of corporations. Without an organized market for corporate securities, the average individual holder would stand in a most defenseless position. He could not learn their price from day to day, because transactions, if private, would not be recorded, might be designed to mislead, and certainly would not be representative of the general judgment. He would be exposed to a hundred times the fraud of to-day. He would be at the mercy of every rumor. He would be unable to place a correct estimate of the importance of current events upon the price of his securities. He could be easily misled by unscrupulous counselors into selling his securities far below their fair value. Despite the many advantages of the limited liability company, it is also certain that most people would be loath to give their money for even the highest grade securities, if they had no positive assurance that in case of necessity they could, at a moment's notice, and at the prevailing price, obtain their value in cash by selling the same in the free market which our large exchanges afford.

To-day, however, every newspaper of any importance in the

[2]Charles A. Conant, "Wall Street and the Country." Pages 83 and 87.

country gives daily the quotations of leading securities for the day before, and the holder cannot be deceived as to the price. These quotations represent the average combined judgment of many minds, which is given concrete expression in actual transactions on the floor of the exchange. Through the widespread publicity of stock exchange quotations the world over, the holders of securities are given gratis the combined opinion of the most competent financiers as to the value of those securities at present and their prospective value in the future. Since these financiers always have in mind the future, rather than the present, their initiative in making purchases and sales will tend to discount the effects of coming events. The holder of stocks and bonds, if he be a thinking and observing man, is free to disregard these quotations if he chooses; but if their trend is pronounced they may serve as a guide by which he may regulate his own action relative to the holding or selling of his securities.

Importance must also be attached to the protection and safeguards which organized stock exchanges give the stock and bond holder, in regulating brokerage transactions and maintaining a standard of commercial honor among brokers, much higher than would otherwise exist. It is not to be wondered at that in the free buying and selling of such a vast amount of flexible and easily transferable property as corporate stocks, many questionable practices should have arisen, which only time will see eliminated. In this connection it should be remembered that the constitution of nearly every stock exchange defines the object of the exchange as follows: "Its object shall be to furnish exchanges, rooms and other facilities for the convenient transaction of business by its members, as brokers; to maintain high standards of commercial honor and integrity among its members, and to promote and inculcate just and equitable principles of trade and business." No person can be elected to membership until he has signed the constitution of the exchange, and by such signature he obligates himself to abide by the same, and by all subsequent amendments thereto. The value of this organization becomes apparent when we take account of the gigantic frauds perpetrated upon innocent investors through advertising campaigns by persons unaffiliated with any recognized exchange, or by certain members of unorganized curb markets.

While by no means perfect, the value of many of the stock

exchange regulations (nearly all stock exchanges have similar regulations) to the investing public are so evident that more than passing mention is unnecessary. Only a few such regulations will be noted.

All stock exchanges provide for the arbitration of disputes which may occur between members, and if both parties are willing, between members and their customers. They also prescribe rules governing the nature of contracts, the making of all offers and bids, the registry and transfer of securities on the transfer books of the corporations, and the conditions upon which securities may be listed upon the exchange for trading purposes. Practically all stock exchanges also require that all transactions must be real, and that no fictitious or unreal transactions shall be permitted; that discretionary orders cannot be accepted by brokers; and that every member of the exchange must keep complete accounts, subject at all times to examination by the governing committee or any standing or special committee of the exchange, and under penalty of suspension, no member may refuse or neglect to submit such accounts, or wilfully destroy the same. Nor may any member, under pain of suspension (a serious penalty involving not merely the loss of the rights and privileges of membership, but also the stigma attaching to the member as a factor in the business community) be guilty of "any conduct or proceeding inconsistent with just and equitable principles of trade."

Many exchanges stipulate that any broker employed for the purchase or sale of securities must keep a record of every transaction showing the date, number of shares, name of the security, price, the broker from whom bought or to whom sold, or for whom bought, or for whom sold; and on the day of executing the order, must furnish the customer with the name of the broker from whom the security was bought, or to whom sold. Non-compliance with this rule makes the broker guilty of fraud or false pretence, or of acts detrimental to the best interest of the exchange. Nor may any member sell securities for his own account, thus nullifying the effect of his client's order. Practically all exchanges provide that no member, under pain of suspension, shall be guilty of any act which the governing committee shall deem "detrimental to the interest or welfare of the exchange;" that no member shall resort to the publication of any advertisements, other than of a strictly legitimate

business character, any act to the contrary being deemed an act detrimental to the interest and welfare of the exchanges; and that no member may be connected, directly or indirectly, by any method whatsoever, with any bucket-shop or organization engaged in the business merely of dealing in differences of quotations on the fluctuations in the market, without a *bona fide* purchase or sale of the security or commodity involved.

According to a recent ruling of the New York Exchange, in order to prevent manipulation, and to protect the small investor or speculator, brokers offering to buy or sell more than 100 shares of stock, are compelled to accept any offering of 100 shares, or multiples thereof, and where an offer of a large block of stock is accepted, the buyer or seller must take care of the smaller offerings. If guilty of fraud, or fraudulent acts, or of having made a misstatement upon any material point in his application, either for membership or reinstatement, expulsion is the penalty. Here it should be said that the greatest care is taken by most exchanges in admitting new members, and that in order to be admitted, one must exhibit and prove his bank account and property holdings, and show that he has an adequate financial equipment. The exchanges also carefully regulate the branch offices of all members, and provide that no member shall form a partnership with a suspended member of the exchange, or with any insolvent person, or with anyone, formerly a member of the exchange, against whom any member may hold a claim arising out of transactions.

(2) The stock market also serves a most useful purpose in directing the flow of capital from channels where least needed into those where it can be most beneficially and profitably employed. Daily fluctuations in security prices may have but little significance, yet it is an axiom of the financial world that pronounced changes in the earning power of corporations are reflected, in the long run, by pronounced changes in the prices of their securities. It is equally true that if the stocks and bonds in a given line of industry are quoted, day after day, at a relatively low level, it is an indication of the unprofitable character of that type of investment. It soon ceases to be attractive to investors. The quotation table proclaims its unworthy character to the owners of capital more effectively than any other argument. New enterprises along the same line will be discouraged, for what reason is there to undertake the

extension of an industry already unprofitable, when the same quotation table indicates other lines of industry whose high and rising prices of shares, as a result of large and increasing returns, will serve as a guide to capitalists in directing the flow of their uninvested funds? If the shares of copper mines or street railways are low, and show an unfavorable movement, it is a warning to the holders of capital that they should exercise the greatest caution in giving financial support to the promotion and extension of these enterprises. If, on the other hand, the stocks of equipment companies, steel companies, or railroads are selling high, and show a rising tendency, it is an index that further development and increased production are desirable, and that the flow of capital into these channels is warranted.

By thus reducing the productivity or unprofitableness of many groups of industries to a common basis, and presenting the same in a table of quotations which is easily understood and accessible to all the world, our stock exchanges prevent the great misdirection of investments into unnecessary ventures, which would otherwise be the case. The stock exchange is the clearing house for all news of business significance. All information, political and industrial, is there studied and weighed by experts, who, by buying and selling, gratuitously give their conclusions to the world in the recorded quotations. These recorded transactions, representing the judgment of many trained minds, relieve the army of small investors of the trouble and expense, even provided this were possible, of familiarizing themselves with the many isolated facts underlying the operation, management and future prospects of corporations, possibly situated many thousands of miles away. "Through the publicity of knowledge and prices, the bringing of a multitude of fallible judgments upon this common ground, to an average, there is afforded to capital throughout the world an almost unfailing index of the course in which new production should be directed.[3]

It is more and more true that, just as the banks represent the organization of capital for the making of loans, so the great stock exchanges in America, England and Continental Europe represent the organization of capital for the purpose of investment. Their members and affiliated firms are most intimately associated with the largest banks, insurance companies, corporation directors, promoters

[3]Charles A. Conant, "Wall Street and the Country." Page 92.

and private capitalists. So intimate has this association become that, directly, or indirectly, the promoter with a scheme to develop, the inventor with an invention to finance, or the government and corporation with a large issue of securities to float—all hie themselves to large banking and brokerage houses which have stock exchange affiliations, and which are able to gauge the possibilities and success of the project, formulate the financial scheme by which the capital is to be raised, and lay it properly before the investing public.

(3) Not only does the stock market afford a valuable protection to the holder of securities and direct the flow of capital, but it also serves a most useful purpose to all business men by "discounting the future" and thus affording a register of prospective values for property other than that listed on the exchanges. It is this discounting process which has given our stock exchange the appellation of "barometer of future business conditions." As pointed out in other papers of this volume, speculation deals with the future and not the present or the past. The stocks and bonds of our corporations aggregate so large a proportion of the world's wealth, and represent such a variety of industries, that a marked rise or decline in the general level of prices is the surest indication, in fact an almost unfailing index, of coming prosperity or depression. And the all important fact is, that such changes of prices on the exchanges always precede, that is to say, discount the event, and do not follow, or occur concurrently. Without an exception every business depression in this country had been discounted in our security markets from six months to two years before the depression became a reality.

The financial and business panic of 1907 serves as the latest illustration of the significant fact. The business conditions of 1906 were the best that this country has ever enjoyed. Mills were running overtime, railroads were congested with traffic, and real estate operations were booming. The press was filled with the most roseate "write-ups" and predictions, yet despite the good news security prices showed little gain following the month of August. The earmarks of coming financial and business distress were at hand. The stock market was serving its purpose as the pivotal point where thousands of the brainiest men of the world were acting on judgments which had reference to the future and not the present.

Stocks were for sale by those who reasoned correctly and knew, and were purchased by those who did not know so much. They were even sold at a sacrifice, and as knowledge of the coming state of business affairs percolated from one strata of investors to another, the selling movement became more violent, and in March of 1907 we had our first stock exchange panic. A rebound in prices occurred, but stocks were still for sale, and in July we had our second panic. In the meantime, however, business was excellent, and the press of nearly the whole country wondered what all the trouble was about, and why the Wall Street gamblers were thus losing their senses. The business depression, however, followed, and when it was a reality to even the most ignorant, the stock market had clearly discounted the event, and prices of securities refused to yield further. When business was at its worst, complaints the loudest, and the public press blue as indigo, stock market prices were again merrily ascending. The exchange was again the pivotal point where thousands of the best minds of the country were expressing their judgment of the future, and were willing to convert their cash into securities, because of the anticipated increase in value.

It is the failure to understand this fundamental law of price movements which has been the cause of enormous losses to the unthinking and unknowing, whose judgments are based on what is seen and heard at the time. When the good news, whether it be big crops or large earnings, becomes common property, it has been discounted by the stock market; and similarly, when the bad news is apparent to all, it has likewise been discounted. It is only natural, therefore, that the rank and file should regard the stock market as a most incomprehensible affair, "a bottomless pit," always going contrary to what is so perfectly evident at the time. But one should remember that the stock market is not distinct from other markets. The manufacturer, the merchant, the produce dealer and the real estate operator, all have an interest in its fluctuations, since they have an important bearing on their own transactions. Many of the stock market fluctuations, especially those of a few days or weeks, have little significance, since they may represent only some particular local cause or the whim of some speculator. But if the market steadily and rapidly declines, many business men, who know its "discounting" significance,

will assume a waiting attitude as regards their planned undertakings, or curtail their production; and this waiting attitude, since all business is closely interrelated, will react upon all other forms of business effort.

In this connection attention should be called to the operations of the so-called "bears" who speculate for the fall of stocks through the process of selling "short" that which they do not possess with the object of buying back later at a lower price, and fulfilling delivery on their contract. Many condemn and few sympathize with the "bear" in the market, because of the belief that it is wrong to sell that which one does not possess, that no economic good is performed by this practice, and that "short selling" artificially depresses security prices. In fact many have recently strongly urged the prohibition of such sales.

A moment's reflection, however, will show that all these conclusions have little basis in fact. These critics forget that "short" selling is a common practice in practically all kinds of business. The manufacturer is expected by the wholesaler to sell his finished wares at a definite price for some definite future delivery, and to insure the delivery of his goods at a stipulated price and time, the manufacturer expects the commission man or produce broker to sell the raw cotton or grain or metal for future delivery at a definite price, long before the crop has been harvested or the metal obtained. Contractors, likewise, in contracting for work at a definite price, are constantly selling labor and materials short. The general practice of "hedging" on our exchanges, resorted to by nearly all business men handling our important staples, must necessarily involve a short sale. In business generally, "short selling" is regarded as a necessary means of insurance against business or speculative losses. If recognized here by all persons who have an understanding of business methods, it certainly cannot be maintained that it is wrong in the stock market to sell something which one does not now possess and intends to buy later.

As regards the two other contentions, that short selling does not perform an economic good, and that it actually depresses the prices of securities, these critics are in the wrong. The short seller in the stock market is often the greatest benefactor in repressing rampant speculative enthusiasm on the one hand, and in checking the effects on security prices of excessive pessimism on the other.

"Short sellers" do not determine prices. By selling they simply express their judgment as to what prices will be in the future. If their judgment is wrong they will suffer the penalty of being obliged to go into the market and buy the securities at higher prices. Nine-tenths of the people are by nature "bulls," and the higher prices go, the more optimistic and elated they become. If it were not for a group of "short sellers," who resist an excessive inflation, it would be much easier than now to raise prices through the roof; and then when the inflation became apparent to all, the descent would be abrupt and likely unchecked until the basement was reached. The operations of the "bear," however, make excessive inflation extremely expensive, and similarly tend to prevent a violent smash, because the "bear," to realize his profits, must become a buyer. The writer has been told by several members of the New York Stock Exchange that they have seen days of panic when practically the only buyers, who were taking the vast volume of securities dumped on the exchange, were those who had sold "short," and who now turned buyers as the only way of closing their transactions. They were curious to know what would have happened in those panic days, when everybody wished to sell and few cared to invest, if the buying power had depended solely upon the real investment demand of the outside public.

In reply also to the prevalent opinion that "short selling" unduly depresses security values, it should be stated that "short sellers" are frequently the most powerful support which the market possesses. It is an ordinary affair to read in the press that the market is sustained or "put up" at the expense of the "shorts" who, having contracted to deliver at a certain price can frequently easily be driven to "cover." Short selling is thus a beneficial factor in steadying prices and obviating extreme fluctuations. Largely through its action, the discounting of serious depressions does not take the form of a sudden shock or convulsion, but, instead, is spread out over a period of time, giving the actual holder of securities ample time to observe the situation and limit his loss before ruin results. In fact, there could be no organized market for securities, worthy of the name, if there did not exist two sides, the "bull' and the "bear." The constant contest between their judgments is sure to give a much saner and truer level of prices than could otherwise exist. "No other means," reports the Hughes' Committee, "of

restraining unwarranted marking up and down of prices has been suggested to us."

(4) It has long been recognized that the stock market exerts a powerful and wholesome influence upon the money market, and that the ownership by any country of a large mass of securities, which are listed on the leading exchanges, is a strong safeguard against financial panic. If confidence becomes shaken and a demand for money suddenly makes itself felt, causing creditors to insist on cash settlements, the banks are forced to call in loans and accumulate cash. But as pointed out before, stocks and bonds to an increasing extent serve as collateral for loans, and by virtue of the fact that such securities can be much more readily sold than other property, because of the continuous market for them, bankers first look toward the stock market for the application of corrective measures. The first blow, when money becomes dear, nearly always falls upon the stock market, that is to say, the first loans called are usually those protected with stock and bond collateral; and it frequently happens that a period of forced liquidation in this market sufficiently corrects the money situation so as to leave other business practically unmolested. Crises are prevented, when they can be thus prevented, through the liquidation of securities, and in case they cannot, the security market discounts them, and breaks their force into a succession of small declines, instead of a collapse. And even suppose the crisis is so far reaching that aid must be sought from abroad, if our bankers are the holders of many active stocks, listed on the foreign markets of England, France and Germany, their sale may be effected within an hour or two through a cable order, and the proceeds of the same at once forwarded to this country in the form of gold.

The extent to which credit is made available between different markets, all of which can be brought into touch with one another through the telegraph or cable, has been demonstrated by innumerable examples of the last few decades. The San Francisco conflagration, for example, involved an enormous waste of capital, which had to be replaced by underwriters within a short time; yet it is astonishing to observe how the domestic and foreign fire insurance companies were able to dispose of the securities, in which they had invested their funds, in order to supply the millions necessary to pay claims. Similarly, when France was called upon by

Germany to pay the enormous indemnity of one billion dollars at the close of the Franco-Prussian war, it was generally believed by all the world that France would be disastrously affected for decades to come. Yet the French were fortunately the owners of large masses of securities, many of them of international character and listed on the leading exchanges of the world. When, therefore, the French government called upon its citizens, in this time of distress, to buy government bonds, the quick response was most unexpected. The funds for the purchase of the bonds became readily available, because Frenchmen, being the owners of many securities, simply directed their brokers in London, Berlin, Paris, New York and other markets, to sell them. In brief, the titles which Frenchmen held to the debts of foreigners were simply transferred to other markets, and the proceeds obtained from the sale became available for the floating of the new French loan.

What may seem so apparent in the case of important crises, it should be remembered, occurs almost daily in a less sensational way. A corporation desires to borrow fifty million dollars, and the funds are readily obtained in the most available market by the sale of the securities, or by depositing them as security and borrowing thereon. From week to week the pressure on the money market is largely transferred to the borrower on call, who has deposited stocks and bonds as collateral; and frequent contraction or expansion in money rates is thus avoided. If there was not a large mass of salable securities, and large markets where they could be sold easily, we should have the spectacle of banks charging eight or nine per cent for time loans one month, and then two, three or four per cent another month. Since stock markets, however, make it possible for credit to be placed almost instantly at the disposal of one market or another where most needed, time loan rates fluctuate but little. Commercial borrowers continue to pay a rate of five or six per cent with the serene confidence that they need fear but little variation.

Another illustration of the facilities afforded by securities as a means of making payments, presents itself in the operations of foreign exchange, a field in which security markets are more and more playing an important part. If "A" in New York buys goods of "B" in London, the simplest way, apparently, for "A" to discharge his indebtedness, would be to ship gold to London. But the cost of transportation, handling and insurance, makes this the most

expensive means of effecting settlement. A cheaper plan would be to find a London merchant, "C," who owes money in New York, and request him to make payment in London to "A's" creditor; while "A" in New York makes payment to "C's" creditor in that city. This is the customary way of cancelling international debts, although the various parties interested do not themselves effect the cancellation, but request foreign exchange dealers to do this for them.

These foreign exchange dealers should always know which is the cheapest means of settling international debts, and right here it should be remembered that securities constitute, at times, the easiest and most profitable medium of payment. This brings up the subject of "arbitrage" in security markets, which will only be mentioned here to show the relation which the security market bears to the money market. It happens daily that the quotations for given stocks sold on the New York and London exchanges are not exactly the same, but for various reasons differ slightly. Furthermore, because of organized stock markets in which a market for active stocks is always assured, and the use of the cable, it is possible for an arbitrageur to buy a security in the low market and sell the same security in the other market, where it is selling higher, at almost the same time, and thus realize the difference. Hence the moment a security in London is higher than in New York, or *vice versa,* by a sufficient amount, a foreign exchange dealer in New York with stock exchange affiliations as an arbitrageur, who wishes to remit money to London, may sell that security in London, and at the same time buy that security in New York. Then, instead of sending the money to London, he may use the debt of the London purchaser of the security to settle the account for which he desired to remit the money; while, at the same time, he may pay for the securities he bought in New York with the money paid to him by the debtor in New York, who desired him to settle his account in London. Hence, by selling securites in London, and buying them in New York, or *vice versa,* international debts may be balanced without the transfer of any bullion. Such arbitraging, it is clear, must also tend to bring the prices of securities to a common level in all the leading stock markets of the world, so that an important stock will have a uniform price practically everywhere. The success of the method depends upon the arbitrageur's prompt knowledge of quotations in

the two markets. In practice such quotations are exchanged almost instantaneously. We are informed that the entire process of collecting quotations on the New York Exchange, cabling them across the ocean, and transacting a purchase or a sale on the London Exchange takes only a few minutes, and that some days no fewer than 5,000 messages are cabled by the large arbitrage houses for this purpose.

In the above arbitrage transaction, it is not even necessary to send the securities from one market to the other in order to close the account. Owing to the expense and inconvenience of shipping securities, arbitraguers, wherever possible, try to conduct their business in such a way as to make the shipping of securities between Europe and America unnecessary. As a matter of fact, very few such shipments are made. The arbitrageur, for example, may buy a certain quantity of stock in London to-day, selling the same stock in New York. The next trade, however, may represent a purchase of the same stock in New York, as against a sale in London. Assuming that 1,000 shares were involved in each transaction, the arbitrageur, since he has bought and sold 1,000 shares in each market, can simply balance the transactions and thus settle his entire account. But it is not even necessary for him to even up his daily accounts in order to avoid the shipment of securities. It may happen that he is obliged for a week, a month, or even longer, to continue purchasing a certain security in one market and selling it in another. Here he may do what the "short seller" does. In the market where he has sold the stock he can borrow the same in order to fulfil delivery, while in the market where he has continued to buy stock and it is accumulating on his hands, he may lend the stock for its market value. Thus he may borrow or lend in either market the securities involved in a series of unsettled transactions, and carry these transactions over an indefinite period to suit his convenience. He may continue this practice until a favorable opportunity presents itself for him to sell his accumulations of stock in one market and buy the same stocks in the other market. Most arbitrageurs will patiently await these opportunities from time to time, and the fewer the actual shipments made, the greater will be the profit.

The Curb Market

Aside from the transactions in stocks and bonds on the regularly organized stock exchanges of the world, a very considerable amount of buying and selling is done on the so-called "curb market," which may be defined as an open air market where all persons may buy and sell securities which are not listed on any organized exchange. Of such markets in America the New York "curb" is by far the most important, having had an existence of more than thirty years, although its real importance dates since 1897, when trading in unlisted securities began to assume tremendous proportions. In 1908 the recorded sales of bonds on this market aggregated sixty-six million dollars, and the industrial and mining shares sold there amounted to 46,495,000 in number.

According to the report of Governor Hughes' Committee on Speculation in Securities and Commodities, the New York curb depends, for most of its business, upon the members of the New York Stock Exchange, about eighty-five per cent of the orders emanating from stock exchange houses. In fact the New York Stock Exchange is largely responsible for the continued existence of the "curb," because of a provision in its constitution which prohibits its members either from becoming brokers of, or dealing on, any other organized exchange in New York. At present the "curb" market occupies a section of Broad Street, roped off for its special use, where from 150 to 200 brokers, and as many messenger boys and clerks, congregate daily during exchange hours, to transact orders in those securities which cannot be bought or sold on the regularly organized exchanges of the city.

The "curb" market is essentially an unorganized one, and the expenses of maintenance are met by voluntary subscription. Such regulations as exist are agreed to by common consent, and are promulgated by an agency, likewise established by common consent. This agency also issues daily the official quotations which appear in the public press. According to the report of the Hughes' Committee on Speculation, this agency consists "solely of an individual who, through his long association with the curb, is tacitly accepted as arbiter." There is nothing on the "curb" which can be compared to the method of listing stocks on a regular exchange, but corporations desiring to have their securities bought or sold

in that market must furnish the agency with certain limited information, which, however, is generally regarded as woefully incomplete and superficial. By way of comparison between the two methods of admitting securities to the two classes of markets, the committee reports that the listing committee of a regular exchange "while not guaranteeing the soundness of the securities, gives a *prima facie* character to those on the list, since the stock listing committee takes some pains to learn the truth. The decisions of the agent of the curb are based on insufficient data, and since much of the work relates to mining schemes in distant states and territories and foreign countries, the mere fact that a security is quoted on the curb should create no presumption in its favor; quotations frequently represent 'wash sales,' thus facilitating swindling enterprises."

Because of the unorganized character of the market, and the absence of the many disciplinary measures, already noted, which are imposed upon members of a regular exchange, it is only natural that many and bitter complaints should have been directed against the curb market. It is charged that many frauds are committed upon innocent and unsuspecting persons who, unacquainted with the practice of "washing" sales, are induced to buy and sell securities simply because they happen to be quoted on the "curb." Despite such abuses, however, resulting chiefly from the lax method of admitting securities and brokers to the market, it should be remembered that the curb list includes a larger number of very meritorious stocks, selling at very high quotations, which are dealt in on the curb simply because the corporations which they represent either do not desire to have them listed on regular exchanges or refuse to comply with the rules on listing of such exchanges, especially as regards the issuance of annual financial reports.

In view of the large amount of business on the "curb" which comes through the offices of stock exchange members, the Hughes' committee recommends that the stock exchange itself should formulate and enforce certain rules relative to the conduct of "curb" brokers, and the admission of securities to quotations. The committee recognizes the utility of a "curb" market, and in respect to stock exchange regulation of the same suggests that "if the curb brokers were notified that failure to comply with such requirements would be followed by an application of the rule of non-intercourse, there is little doubt that the orders of the exchange would be obeyed.

The existing connection of the exchange gives it ample power to accomplish this, and we do not suggest anything implying a more intimate connection. . . . To require an elaborate organization, similar to that existing in the exchanges, would result in the existence of another 'curb,' free from such restraints."

THE PURCHASE OR SALE OF SECURITIES THROUGH A STOCKBROKER

By Eliot Norton,
Of the New York Bar.

When a person desires to buy or sell securities he can do so exactly as in the case of any personal property. All he has to do is to find a seller or a purchaser, as the case may be, agree on the price, and complete the transaction by delivering the securities and receiving the purchase price in case of a sale, or receiving the securities and paying the purchase price in case of a purchase. In the case of securities care, however, is needed that they should be described correctly and that any representations as to their value should be confined to true and provable facts. A purchase or sale is so simple a transaction that between honest and reasonably intelligent people there should be no room for differences to arise. The law, too, respecting the sale of personal property is well established, and if differences do arise there is not generally any great difficulty in determining the rights of the parties.

In the case of certain securities there is so great a number of transactions that it has been found convenient for purchasers and sellers not to deal directly with one another but through the intervention of stockbrokers. These make it their business to act as agents for intending purchasers and sellers of certain securities, and wherever there are many stockbrokers they have found it convenient to establish stock exchanges. These are in their nature private business associations founded to facilitate and regulate dealings in securities, to which only stockbrokers belong. The members elect officers and committees with power to regulate matters connected with the exchange, the conduct of its members and the transaction of business. The rules they make are always supplemented by various customs, established among the members, to which is given the same recognition as if they formed part of the rules.

Every stock exchange provides a room which is called "the

exchange," or the "floor of the exchange." The use of this "exchange" or "floor" is regulated by the constitution, rules and customs of each stock exchange. In general, the rules of all American stock exchanges provide:

1. That only the members of a stock exchange shall be permitted on its floor.

2. That during certain hours of every business day the members may deal with one another on the floor.

3. That transactions between members on the floor shall only be in or with certain specified securities.

4. That only certain kinds of transactions shall be permitted on the floor.

Chief among these permitted transactions is the purchase and sale of securities. The manner in which this is done is regulated by the rules and customs of each stock exchange. In general this manner is the same on all American stock exchanges, and is as follows:

During the hours in which trading is permitted to the members of a stock exchange they congregate on the floor, and are permitted then and there to offer and to accept offers to buy or sell securities for a money price. These offers and acceptances are made by word of mouth or merely by customary signs. In making or accepting an offer a stockbroker almost invariably acts as if he were acting for himself only, even though he may actually be acting as an agent, and thus the contract which results when an offer is accepted is, on its face, a contract only between the two stockbrokers.

Every offer to buy or sell is required to be for some fixed amount of some particular kind of security and for a money price, payable on the delivery of the securities according to the rules of the stock exchange by the selling to the buying stockbroker. A variety of times of delivery, or "deliveries," as they are called, is permitted by the rules of every stock exchange, for any one of which an offer may be made.

Since these offers are *essentially* similar except in point of the delivery, they are classified by that as follows:

1. Offers to buy or sell "for cash."

If an offer to buy or sell "for cash" is accepted, the rules fix a particular time in the *same* business day in which the contract is

made, before which delivery of the securities must be made by the seller.

2. Offers to buy or sell in the "regular way" or "regular."

If an offer to buy or sell "regular" is accepted, the rules fix a particular time in *some* business day *following* the day on which the contract is made, before which delivery of the securities must be made by the seller.

3. Offers to buy or to sell where the time of delivery *is postponed* until a fixed time not further off than three days.

Offers of this sort are offers to buy or to sell "at three (or two) days." If an offer of this sort is accepted, delivery of the securities must be made by the seller on the third (or second) day after the contract is made, and before a certain time on such day.

4. Offers to buy or to sell where the time of delivery *may be postponed* until a fixed time not further off than three days.

Offers of this sort are offers to buy or to sell "buyer three" (days) or "seller three" (days). An offer to buy or to sell "seller three," if accepted, gives the seller the option of making delivery of the securities at any time before a fixed time on the third day after the contract is made; and an offer to buy or to sell "buyer three," if accepted, gives an option to the buyer of "calling" (demanding delivery of) the securities at any time before a fixed time on the third day after the contract is made.

5. Offers to buy or to sell where the time of delivery *may be postponed* for longer than three days, but not longer than sixty days.

The commonest form of such offers are offers to buy or to sell securities "buyer thirty" (days) or "seller thirty" (days), or "buyer sixty" (days) or "seller sixty" (days). Such offers, if accepted, give options similar in all respects except that of length of time to those in the case of "buyer three" or "seller three." After offers of this kind are verbally made and accepted they are reduced to writing and such written contracts are known as "stock exchange contracts."

6. Offers to buy or to sell where the time of delivery is fixed by the happening of some future event.

Common forms of such offers are offers to buy or to sell securities "seller, (upon the) opening of books," or "to arrive," or "when

issued." If an offer of this kind is accepted delivery of the securities must be made by the seller as soon as the event stated in the offer happens.

The contracts which result from the acceptance of offers to buy or to sell permitted to be made on the floor of stock exchanges must obviously be alike in the matters in which such offers are, and can only differ in the matters in which such offers do. Consequently they are all alike in being contracts to buy or to sell a fixed amount of some particular kind of security for a money price to be paid on the delivery of the securities, and differ in essentials only with respect to the time when delivery of the securities must or may be made by the seller or may be called by the buyer, which in all cases is postponed until some time after the contract is made.

The legal nature of these contracts is not difficult to determine. In all of them it is clear that the intention of the parties is to postpone the passing of the title of the securities contracted to be bought or sold *until* they are delivered and the purchase price paid. Hence, as no actual sale of personal property can occur without a complete transfer of title from the seller to the buyer, these contracts do not constitute actual purchases and sales, but are ***contracts to make purchases and sales*** at the time when they are to be performed by the delivery of the securities and the payment of the purchase price. All of them are what are called "executory contracts of sale," in which the actual purchase and sale does not take place until the contract is performed. It is, however, usual for stockbrokers to call contracts to buy or to sell securities "for cash" or "regular" "purchases" or "sales," and only to call contracts where the delivery may be postponed for longer than three days, "stock exchange contracts" or "*contracts* for the receipt or delivery of securities." Contracts to buy or to sell securities where the time of delivery is or may be postponed until a fixed time not further off than three days stand by themselves. They are never called "contracts," but are usually included under the head of "purchases" or "sales."

Since stockbrokers in contracting act as principals, each is legally bound to the other to perform his part under the terms of any contract. If either fails to do so, every stock exchange gives to the other an effective and immediate method of liquidating his

loss, and will enforce this liquidated claim so far as it is able by suspension of the defaulting stockbroker and by the sale of his "seat" or share in the exchange. To facilitate stockbrokers in performing the contracts that they make, every stock exchange has established rules by which the performance of all contracts made on its floor can be conveniently and expeditiously carried out. In consequence of this, every offer to buy or to sell securities made on the floor of a stock exchange contains an implied term to the effect that the contract which will result from its being accepted shall be performed according to the rules of such stock exchange. It is to be noted that by these rules the actual performance of any contract takes place *away from* the stock exchange on the floor of which it is made. In spite of this, it is customary to speak of "buying" and "selling" securities *on* the floor or *on* the exchange, and also of purchases and sales being made *on* the floor or *on* the exchange, where it would be more proper to speak of *contracting* to buy or to sell on the floor or on the exchange and of *contracts* for the purchase and sale of securities being made on the floor or on the exchange.

The manner in which American stock exchanges permit their members to deal on "the floor" for the purchase and sale of securities has now been described.

Since a stockbroker can only deal on the floor of his exchange in the manner described and can only purchase or sell securities of certain kinds for certain deliveries, any person desiring to employ him to do so must be willing that in doing so the stockbroker should conform to the way stockbrokers have to act. And as knowledge of the rules and customs which regulate this way are chargeable, as a general thing, to employers of stockbrokers, it is incumbent on them to understand them.

Now, of all the transactions engaged in between stockbrokers and the persons who employ them, the simplest is a purchase for a customer who has money which he wishes to forthwith invest in securities or a sale for a customer who has securities whose value in cash he wishes to get immediately; and the way this has to be performed must be understood before any other transaction can be fully comprehended. A transaction of this kind is called an outright or simple purchase or sale, or, more technically, a purchase or sale for "the investment account." The way this trans-

action is performed is as follows: The first step is for the customer to engage and authorize the stockbroker to do what he wishes done. Then the stockbroker contracts on the floor of the stock exchange to buy or to sell the securities the customer wishes bought or sold, either "for cash" or "in the regular way" as the customer may prefer. The stockbroker contracts, as has been stated, in his own name, and becomes personally bound to perform the contract or contracts he makes. If he performs with the securities the customer wishes to sell or with the money he wishes to invest, it is obvious the customer's desires will be fulfilled. This is, of course, what the customer intends he should do. Hence, as soon as the stockbroker has contracted, the customer supplies him with the means to perform by either giving him the money to pay for the securities he has contracted to buy, or the securities to deliver which he has contracted to sell. Then the stockbroker performs his part of the contract or contracts he has made, and should simultaneously receive from the stockbroker or stockbrokers with whom he has contracted the securities he agreed to buy, or the purchase price for the securities he agreed to sell. He then accounts to the customer, and gives him the money or the securities he has received.

This completes the transaction, so far as the purchase or sale of the securities is concerned. The stockbroker, however, must be paid for his services. Even if he were willing to act without compensation he cannot do so, for the rules of all stock exchanges provide that a stockbroker must charge and be paid *at least* a certain fixed sum for every transaction he makes on behalf of any other person, and impose a severe penalty for any violation of this provision. This sum is called the stockbroker's commission, and is a fixed percentage of the par value of the securities contracted to be bought or sold. It is usually provided that the stockbroker must charge and be paid at least this commission without any manner of rebate or return, discount or allowance "on all purchases and sales" and contracts which he makes on the floor of the stock exchange. The words "purchases and sales" are here used with the significance of contracts to buy or to sell, and consequently the customer must in all cases be prepared to pay this commission *when* the stockbroker has contracted to buy or to sell. In practice, however, the stockbroker does not usually require him to pay it until he has fully performed the contract or contracts he has made, and

for his services in so performing the stockbroker makes no additional charge.

I now propose to consider *the engagement* of a stockbroker by a customer who wishes a simple purchase or sale of securities to be effected on the stock exchange to which the stockbroker belongs. Since this can only be done in the way and on the terms described, the engagement must be adapted to meet the requirements of this way and these terms. And from this point of view the following matters are requisite to every such engagement:

1. Since the stockbroker acts as the agent of the customer, he must be vested with authority to buy or to sell the securities the customer wants in the manner described. This way naturally falls into two parts—(*a*) the contracting to buy or to sell, and (*b*) the performance of the contract or contracts when made, both of which are done by the stockbroker, and both of which must, consequently, be embraced by his authority.

2. Since the stockbroker performs with the money or securities of his customer, provision must be made for his being supplied with the money or the securities. This usually takes either the form of a deposit *at the time* the stockbroker is engaged, or, as the making of contracts is always uncertain, of an offer to supply the money or the securities *on* the making of the contract or contracts.

3. Since the stockbroker must be paid a commission, on terms and in amount as are fixed by the rules of his stock exchange, provision must be made for the payment by the customer of this commission according to the requirements of these rules. This usually takes the form of a simple promise by the customer to do so.

Subject to these requisites, the stockbroker may be engaged in any way he and the customer may agree upon, and all kinds of promises, provisos and conditions may be made part of his engagement. There has been established, however, a convenient, brief and customary way of engaging a stockbroker to carry out a simple purchase and sale of securities. This way is almost always used, except where a customer is ignorant of it, or peculiar circumstances exist which force the adoption of some other form of engagement. I now propose to describe this mode of engagement, its legal consequences, the rights of the parties, and how, in point of fact, the transaction is carried out under its terms.

The Order.—The first step is for the customer to give the stockbroker, either verbally or in writing, an "order" to buy or to sell securities for "regular delivery," for which there is a regular form. This is: "Buy or sell for my account and risk (here follow the amount and kind of securities to be bought or sold) at (here follows the price at which the customer wishes the securities to be bought or sold)."

Technical words are used, and technical meanings are attributed, and customs have been established in the business of stockbrokers. Thus a typical order in the regular form would be worded: "Buy for my account and risk 100 D. L. & W. at 271." So far as these customs, technical words and technical meanings apply to the wording of orders in the regular form, they must be described before the full meaning of an order like this typical one can be apprehended.

1. The word "buy" or "sell," as used in an order in the regular form given to a stockbroker who is a member of a stock exchange, is taken to mean "contract to buy" or "contract to sell on the stock exchange of which you are a member according to its rules and customs."

2. The words "for me" or "for my account," as used in an order in the regular form, are taken to mean that the contract the stockbroker is directed to make is to be made for and on behalf of the customer.

3. The words "at my risk," as used in an order in the regular form, have the customary significance that the customer assumes the risk of any failure to perform on the part of the stockbroker or stockbrokers with whom his stockbroker contracts, and that he does not require the latter to guarantee in any way that the contract or contracts which he makes will be performed by the stockbroker or stockbrokers with whom he contracts. If these words are omitted in an order in the regular form, as they may be, they are implied by force of custom.

4. When an order in the regular form does not state a particular delivery for which the securities are (to be contracted) to be bought or sold, it is taken to mean that they shall be contracted to be bought or sold for "regular" delivery.

5. A large number of abbreviations of the full names of corporations and for various kinds of securities are customarily used among stockbrokers. When any of these abbreviations are used in

an order in the regular form, they are taken for what they stand for to stockbrokers.

6. Where an order in the regular form simply states a number before the name or the customary abbreviation for the name of a corporation, as "Sell for my account and risk 100 Union Pacific," the number in question is taken to mean the number of shares of the capital stock of the corporation named which are to be (contracted to be) bought or sold. If the capital stock of the corporation is divided into preferred and common stock the order should of course specify which kind is intended, but if this should be neglected the order will be taken by custom to refer to the common stock.

7. Bonds and shares of stock are contracted to be bought or sold on the floor of a stock exchange for so much for each hundred dollars' worth of the par value. Hence, when an order in the regular form simply states a number at which a number of bonds or shares of stock is to be bought or sold, as "Sell for my account and risk 100 Erie at 13," the number in question is taken to mean the number of dollars for which each hundred dollars' worth of the par value of the bonds or stock shall be (contracted to be) bought or sold, subject to the following custom:

That where a particular price is stated in an order in the regular form, the words "or better" are read in after it; which mean that the price stated is the price at which the securities shall be (contracted to be) bought or sold, unless a better price—*i. e.*, a lower, in case of a purchase; a higher, in case of a sale—is obtainable, in which case they shall be (contracted to be) bought or sold at such better price.

8. Where no price is stated in figures in an order in the regular form, but the securities are ordered to be (contracted to be) bought or sold "at the market price" or "at the market," it is taken to mean that the securities are (to be contracted) to be bought or sold for the best price—*i. e.*, the lowest, in case of a purchase; the highest in case of a sale—obtainable.

9. Where an order in the regular form does not state anything at all about the price for which securities are (to be contracted) to be bought or sold, the order is taken to mean that the securities shall be (contracted to be) bought or sold at the "market price," the meaning of which has just been explained.

Interpreting according to these customs, technical words and

meanings, the order taken as typical, "Buy for my account and risk 100 D. L. & W. at 271," it becomes: "I order you to contract to buy for regular delivery for me and at my risk on the stock exchange of which you are a member, according to its rules and customs, 100 shares of the common stock of the Delaware, Lackawanna & Western Railroad Company, at 271 dollars, or better, for every hundred dollars' worth of the par value of the shares."

The Legal Nature of the Order.—Stockbrokers form a particular class of semi-public agents, and as such hold themselves out as ready to act as agents for their employers, who are called "customers" or "clients." Obviously an order is a proposition to vest the stockbroker with an agency. As between the principal and the agent the scope of every agency depends *on the principal's intent.* Hence, it is the duty of the customer to make any order so clear that there is no possibility of its being misunderstood by the stockbroker. This is peculiarly incumbent on him in view of the customs, technical words and meanings which have been described, and which in law would probably be held to bind a customer, even if he should claim he did not know of them. Assuming that a customer has given an order in the regular form, and interpreting it according to the customs, technical words and technical meanings which have been stated, then it will bear the full significance stated above and will be found to contain:

1. A proposition to make the stockbroker the customer's agent with authority,

(*a*) to contract to buy or to sell, according to the rules and customs of the stock exchange of which the stockbroker is a member, the securities stated in the order on the terms there stated, and, since this authority is "to contract," it permits the stockbroker making as many separate contracts with one or more other stockbrokers as may be necessary to purchase or sell the securities stated in the order;

(*b*) to perform in the way established by the rules of the stock exchange of which the stockbroker is a member the contract or contracts made under the authority to contract.

The former of these authorities is clearly expressed in the order. The latter must be implied, but the ground for its implication is solid, and is that the customer must be held to propose to authorize the necessary consequences of what he expressly proposes to author-

ize, and personal performance by the stockbroker of the contract or contracts he makes is a necessary consequence of making it or them, as it is expressly proposed he should do, according to the rules and customs of his stock exchange.

2. An implied offer by the customer that if the stockbroker becomes the customer's agent, as proposed by the order, and in consideration of doing so the customer will reimburse and indemnify him for all outlays, expenses, liabilities and losses necessarily or reasonably incurred in so acting as agent. This offer obviously involves an offer to supply the stockbroker with the securities or money needed to perform in the event of his contracting to buy or to sell.

3. An implied offer by the customer to pay the stockbroker a commission in accordance with the requirements of the rules of his stock exchange.

These requirements are that the stockbroker shall be paid a fixed commission for every contract he makes on the floor of the stock exchange to which he belongs. Hence, the customer's implied offer is to pay the stockbroker the usual commission in consideration of and on the making of any contract or contracts to buy or to sell he may make to carry out the order. Hence, this offer remains as made and unaffected by anything the stockbroker may do until he has *actually contracted to buy or to sell* the securities. Then, by the performance of what the customer offered to pay for, the customer's offer to pay a commission ripens into a promise to do so. In this way a contract springs into existence binding the customer to pay the fixed commission. This contract is of the unilateral or executed variety.

This is the whole legal significance of an order in the regular form:

The Taking of an Order.—Where a proposition to confer an authority is made all that is required in law to create the relation of principal and agent between the proposer and the person to whom the proposition is made is that the latter should consent to the proposition. Hence, after an order is given to a stockbroker the next step is for him to decide whether he will refuse it or consent to it. If he does not refuse it, as he may in any case, he will express in some way, by words or acts, his consent or willingness to undertake what he is ordered. Such *an expression of willingness* is

called "taking" the order. This expression of willingness, this consent to the proposition made him, need not necessarily be communicated by the stockbroker to the customer; it may be inferred from his conduct. So, too, a refusal to consent to a proposition to confer an agency need not be communicated, but can be left to be inferred. But since it is very easy, except in clear cases, for error to arise in inferring what a stockbroker means in the case of his remaining silent when an order is given him, the only safe course for the customer is to obtain a clearly expressed consent or refusal.

This is *all* the stockbroker usually expresses at the time of taking an order, except that, where he has not entire confidence in his customer's responsibility, he will ask him to deposit with him the securities he wants to sell or the money he wants to invest.

This giving and taking of an order of the kind described, with or without a deposit of money or securities constitute the whole of the customary form of engagement of a stockbroker to carry out a simple purchase or sale of securities.

The Legal Effect of "Taking" the Order.—This is to constitute the stockbroker the customer's agent, and to vest in him the authorities proposed by the order, and also to turn the customer's offer to indemnify the stockbroker into a promise to do so; but it has no effect upon the customer's offer to pay a commission. That remains an offer until the securities are contracted to be bought or sold.

Sometimes, though rarely, the stockbroker, in addition to expressing his willingness to undertake an order, expressly promises, in consideration of the customer's giving him the order, to act as the customer's agent. It is unusual to find such a promise expressed in words, but it is usual for courts of law to imply it in all cases where an order is "taken." The only effect of such a promise is to add to the stockbroker's status as agent, created by the mere "taking" of the order, a contractual obligation on his part *to act as agent.* This makes no difference in the rights and duties of the customer and stockbroker as principal and agent, for, whether they spring from status alone or from status *and* a contract to act as agent, they are the same, except that in the latter case there is a liability sounding in *contract* for any default in his duties as agent in addition to the ever-present liability in tort. It is to be carefully noticed that in this regular form of engagement a promise

on the part of the stockbroker to carry out the order or to do anything except to act as the customer's agent cannot be found.

The Legal Effect of the Whole Engagement.—It follows from what has been said that the whole result of the usual engagement of a stockbroker, consisting in the giving of an order and the "taking" of it, accompanied by or without an express or implied promise to act as agent, is to create an agency coupled with an offer to pay a commission and a promise to indemnify the stockbroker.

The deposit of the securities to be sold or the money to be invested at the time the order is given does not change this result. It merely adds a collateral arrangement of security. It provides in advance the securities or money which the stockbroker will need in case he contracts. This deposit must, of course, be at once returned by the stockbroker to the customer in case he fails to contract.

Where the money or securities are not deposited at the time of giving the order, the stockbroker relies upon the customer's promise to supply the securities or money in case the stockbroker contracts, which, as has been stated, is involved in the customer's promise to indemnify the stockbroker against loss and liability.

It can now be seen that this customary mode of engagement meets all the three requirements which on an earlier page were laid down as necessary to every engagement of a stockbroker to buy or sell securities according to the rules of American stock exchanges.

Assuming now that a stockbroker has been engaged by his taking an order like the one given above as typical, I will state according to what legal principles and how as a matter of fact he must thereafter act to carry out his engagement correctly.

Of the Carrying Out of the Order.—The relation between the customer and the stockbroker created by the usual engagement being that of principal and agent, the principles of the law of agency govern its carrying out. If in any case the stockbroker carries out the order according to the intent of the customer, the customer is bound. This is the meaning of the stockbroker having authority. If, on the other hand, the stockbroker fails to carry out the order according to the customer's intention, the customer is not bound In such a case he is not required to take any steps to assert this. On the other hand, if he chooses to, he can ratify what has been

done contrary to his intention. Ratification rests on the consent of the customer to be bound. Therefore he should, as a matter of precaution, repudiate anything done contrary to his intention, in order that his silence may not be taken and used as evidence of consent.

Another principle of the law of agency is that the law requires of one who undertakes an agency that he should exercise due care in and about what he is entrusted to do, and to act in good faith toward his principal. If he fails in either direction he will be liable in damages.

The degree of care which a stockbroker must show is to be measured by the standard of care which a faithful and intelligent stockbroker thoroughly versed in his business would show. It is not to be measured by the degree of care which one not a stockbroker would show, or by that degree of care which is customary, or which stockbrokers usually give, unless such degree of care is that which an intelligent, faithful and competent stockbroker would show.

The duty of showing good faith is very stringently enforced. In doing so judges incline to lay down general rules of conduct rather than to decide each case on its merits. Thus the rule is established and enforced without exception that a stockbroker cannot sell to or buy from himself, or his clerk, or a firm of which he is a member, and this without proof of fraud, and even in case where the price obtained for or given by the customer is as good or better than would otherwise have been obtained or paid. There is no established custom which would justify stockbrokers in violating this rule of law. These are the main principles of the law of agency which govern the carrying out of an order.

How, now, as matter of *fact*, does a stockbroker carry out an order interpreted according to the customs, technical meanings and technical words already stated? He is authorized first to contract. This authority is qualified by two customs. Before stating them it is necessary to explain that the "execution" of an order consists only of *the contracting* to buy or to sell the securities ordered upon the terms of the order, and an order is said to be "executed" when this is done. In other words, the "execution" of an order is the carrying out of the authority to contract. The two customs are:

1. An order in the regular form to buy or to sell securities can only be "executed," if at all, on the day it is given, unless it is expressly stated in the order that it is "good" for a longer period of time or for some particular period of time.

2. There is implied as a term or condition of an order in the regular form that the stockbroker shall try to "execute" the order as early in the time for which it is "good" as it is possible for him to do in accordance with the rules and customs of the stock exchange to which he belongs.

These two customs are so well established that a customer would probably be held bound by them, even though nothing was said about them at the time the order was given; and hence, if he does not wish them to apply to an order, he must say so clearly to the stockbroker. Assuming they do apply, the stockbroker's first step after taking an order is to try to execute it at the earliest possible moment in the time it is good for. If he neglects this duty he will be liable in damages.

Now, unless he carries out the terms of the order *exactly*, the customer will not be bound, and the stockbroker will presumptively be liable for want of care. For, unless given discretion, the stockbroker cannot vary in any particular from the terms of an order, even where he benefits the customer by so doing. Hence, he must try to contract to buy or to sell according to the rules and customs of his stock exchange the exact amount of the particular kind of security stated in the order at the price or better, if any is fixed, or, if no price is fixed, at the highest market price for regular delivery. As already stated, if in any case the stockbroker succeeds in *contracting to buy or to sell as he is ordered to*, he is said to have "executed" the order, and the order is said to be or to have been "executed." And this is so although the actual performance of the contract or contracts by the delivery of the securities and the payment of the price have yet to come. In executing an order the stockbroker can make one contract, or as many contracts with the same or different stockbrokers as may be necessary or advisable, provided that the total amount of securities contracted to be bought or sold is the amount stated in the order. No custom exists allowing a stockbroker to contract to buy or sell a less amount of securities than he is ordered to in a case where no permission is given to him to do so. This permission is, however, usually given with all

orders to buy or sell more than one hundred shares or ten bonds, and the number of shares or bonds stated in the order is in such case treated as a limit to be reached if possible. Where such permission is given, the order is said to be "executed" for as many shares or bonds as are contracted to be sold.

The Commission.— When the stockbroker has contracted to buy or to sell according to the terms of the order, the customer's offer to pay him a commission according to the rules of the stock exchange to which the stockbroker belongs ripens into a promise to do so. The customer is not bound to volunteer to pay it. He can wait until the stockbroker asks him for it. The stockbroker does not usually demand it of the customer at this time, but charges it against him and waits for it until he accounts to the customer.

The Notice.—There is a custom that the stockbroker, as soon as he can after "executing" an order, should give or send to the customer a written notice of what he has done. If the notice is sent to the customer, it must be sent in such a way that knowledge of its contents can be imputed fairly to him. To do this, it would be held in most jurisdictions that mailing to the customer the notice, postage paid and properly addressed, or leaving it at his business office, or, if he has no office, at his home, was sufficient, without proof that the notice reached him, where there was no evidence that it did not reach him.

Where it is the customer's intent that this custom should apply, and in law it will generally be presumed that he has such intent, the law will enforce it as a term of the stockbroker's agency, and will require that the notice shall be given. The stockbroker need not follow any particular form in giving this notice. There is, however, a customary form which is almost always used. This states exactly what kind of contract or contracts the stockbroker has made, the date on which it or they were made, and gives, in addition, the name of the stockbroker or stockbrokers with whom the contract or contracts has or have been made. As regards the wording of such a notice, the same customs, technical words and technical meanings which are used in the wording of an order in the regular form are made use of in the same way, *mutatis mutandis.* Since these customs have been stated, they need not be repeated here. A notice which would be typical would read:

"March 26, 1910.

"We have sold for your account and risk 100 D. L. & W. at 285 to Brown.

(Signed) "E. C. SMITH & Co."

The Performance of the Contract or Contracts.—If the stockbroker has not previously demanded and received from the customer the means to perform the contract or contracts he has made, he will demand them at the time he notifies the customer of the "execution" of the order, or as soon thereafter as he needs them. The customer is bound to comply with this demand by reason of his offer and promise to indemnify the stockbroker against all liability.

As already stated, the stockbroker has authority to perform in the regular way the contract or contracts he has made, which authority is dormant till the contract or contracts is or are made, and comes to nothing if the stockbroker fails to "execute" the order. This authority is created by "taking" the order, and where at that time there is no communication from the stockbroker to the customer it can only rest upon his status as agent, and no contractual obligation to act as the customer's agent can be implied. But a contractual obligation to act as the customer's agent in performing the contract or contracts can be *implied,* and will usually be implied, from the deposit, at the stockbroker's implied or express request, of the means to perform by the customer either at the time of the "taking" of the order or after its execution. But it is not usual to find an *express* promise that the stockbroker will act as the customer's agent in performing. Nor is it usual to find at any point in the engagement of the stockbroker any express obligation binding him to perform the contract. It might be thought requisite that such an obligation should be created. If it were required it would be for the customer's protection, and it is not necessary for that: first, because of the stockbroker's duty to act in good faith and with due care, which arises, as has been stated, from his agency to perform; and, secondly, because the stockbroker, in order to relieve himself from the personal liability he assumes in contracting as he does in his own name, is always ready, without being under any obligation to the customer to do so, to perform any contract he may make on behalf of a customer if the customer supplies him with the means to do so.

It does not seem necessary to describe the actual steps the stockbroker takes to perform in the regular way a contract or contracts he has made on behalf of a customer. In this, as in every other part of his agency, he must exercise due care and show good faith. On performing he must, of course, receive the securities which he contracted to buy where the customer ordered securities bought, and the price in money he contracted to sell for where the customer ordered securities sold. Since he actually receives these as the agent of his customer, it is his duty to account for them promptly to the customer. This completes the transaction.

I have now described the customary form of engagement where a customer wishes to buy or to sell securities for regular delivery, its legal consequences, the rights of the parties, and how, in point of fact, the transaction is carried out under its terms.

Where a customer wishes to buy or to sell securities for "cash" instead of for regular delivery, the same customary form of engagement is used. The only difference is that the order must state that the securities are to be bought or sold for "cash." It follows that the consequences of this engagement, the rights of the parties and the way, in point of fact, in which it is carried out, are the same as have been described, with the exception that the time of delivery is different.

The same is true where a customer wishes to buy or sell securities and to postpone the delivery for not longer than three days; and likewise where he wishes to buy or sell securities, granting or reserving an option of delivery or calling for the delivery of the securities at any time within three days.

The same is also true where a customer desires to buy or sell securities for "future delivery," except that in such cases there are important additions to the engagement of the stockbroker arising through the necessity of securing the customer's delivery to him of the securities sold or the purchase price of the securities bought when the time comes for the stockbroker to need the one or the other. This can be done in any way, but is usually done by the deposit of a certain amount of money, called a "margin," under a somewhat elaborate agreement, the terms of which have been established by custom.

It may also be noted that where a customer wishes to buy securities on a margin, in the hope that they will increase in price,

the transaction involves a purchase of securities for regular delivery made in the regular way under the customary form of engagement, followed normally by a sale of the same securities for regular delivery, likewise made in the regular way and under the customary form of engagement. And so, where a customer wishes "to sell securities short" there is involved a sale of securities for regular delivery made in the regular way under the customary form of engagement, followed normally by a purchase of the same securities for regular delivery, likewise made in the regular way and under the customary form of engagement. But these speculative transactions have many other features, which would make this article too long to consider.

But it can now be seen why it is absolutely necessary for a person intending to deal with a stockbroker, whether he intends to buy or sell securities outright or for future delivery or on a margin, to understand how a simple purchase and sale for regular delivery is carried out under the regular form of engagement.

STOCKS AND THEIR FEATURES—A DIVISION AND CLASSIFICATION

By John Adams, Jr.,
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In the following article stock certificates will be classified (1) according to their par value, (2) according to the conditions regarding their issue (*i. e.*, whether the stock is full-paid or assessable), and (3) according to the rights and limitations attaching to common and preferred stocks. Following this threefold classification the article will next discuss debenture stocks and those stock certificates which are analogous to preferred. Emphasis will be given only to such stocks as are listed on some stock exchange in the United States, though at times it will be necessary to touch upon shares traded in elsewhere.

In the first place stock certificates may be classified according to their par value. The great majority of important railroad, industrial and financial corporations have issued stock with a par value of $100; at the same time, however, some of the best railroad stocks in the country, such as the Pennsylvania Railroad, Reading, Delaware, Lackawanna & Western, and Lehigh Valley, have a par value of only $50. Among the largest industrial concerns with shares of only $50 par may be mentioned the Westinghouse Electric Company, the United Gas Improvement Company, Lehigh Coal and Navigation, Pittsburg Brewing, and Cambria Steel. It will be noticed that these companies are mainly incorporated in the State of Pennsylvania, and it may be said that the $50 share for railroads and industrials is largely local to the Keystone State. Examples of large companies with a stock of this par value incorporated elsewhere are extremely few. The shares of two or three unimportant railways have a par value of $25, but that figure is found primarily in the issues of Boston "coppers," such as Anaconda, Calumet and Hecla, Old Dominion, Osceola, Quincy, Tamarack, Wolverine, etc. Generally speaking, these are stocks of proved value, since their average price is many times the figure stamped on the face of their

certificates. In the mining field we also find a large number of lower par values, *i. e.*, in multiples of five dollars and even one dollar a share or lower. In most instances, however, these shares represent mining concerns which are traded in on the "curb" markets or on the exchanges of San Francisco, Salt Lake City or Colorado Springs.

According to the laws of most states any par value whatever may be fixed for the stock. Consequently there are par values all the way from one cent, in certain mining and oil-well properties, to a few banks and trust companies, such as the Humboldt Savings Bank, and the Union Trust Company of San Francisco, and the West Side Bank of Milwaukee, each with shares of a par value as high as $1,000. The New Jersey corporation laws, under whose fostering influence most large industrials have been incorporated, provide that any par value whatever may be chosen; but it must be emphasized that the vast majority of stock issues of sufficient importance to be listed on a large exchange have a par value of $100. It is also practically the universal rule for corporations to have the same par for all classes of its stock where there is more than one issue. Only one exception has been found to this rule, the Northern Commercial Company, which has $1,622,800 of common stock with a par of $100, and $1,620,000 preferred stock of a par value of only five dollars. If every share casts one vote, the reason for the difference may be inferred.

Some stocks, strange as it may seem, have no par value whatever. Thus, the Great Northern ore properties constitute a trust created in 1906, consisting of 1,500,000 "trustees' certificates of beneficial interest," one of which was given to every share of the Great Northern Railway Company when the mineral lands of that corporation were segregated. The Adams Express Company, a voluntary association, dating from 1854, likewise has 120,000 shares of no stipulated par value, paying dividends of eight dollars per share annually. Similarly, the East Boston Company, a Massachusetts corporation going back to 1833, has 150,000 shares of no par value; and among other companies which have adopted this plan several might be mentioned which to all intents and purposes have given their stock a par value of $100, though a "share" of no par value whatever is employed; *i. e.*, the Boston and Worcester Electric Companies and the Boston Suburban Electric, each with

preferred stock entitled to four dollars a year cumulative dividends and $100 in case of dissolution.

This Massachusetts idea, if we may so term it, was also applied in the reorganization plans of the Chicago Railways Company. The capital stock of this company is $100,000, which is used as a basis for 265,000 "participation certificates" of four series: The first of 30,800 "parts," the second of 124,300 parts, the third of 60,000, and the fourth of 50,000. The first three are entitled, in order, to eight dollars cumulative dividends, and to $100 on dissolution. The fourth series gets the surplus dividends and capital. The stocks of these companies thus really have a par value of $100 under a different name—using dollars for dividends instead of percentages, and allowing the preferred $100 on dissolution. The reason for this policy may be found in the fact that shareholders cannot be held liable up to the "par value" for corporation debts, as is the case in some states; and again when the capital consists of "parts" of no par value there may exist a good superficial answer to the charge of "stock watering."

A further classification of stock certificates can be made with reference to their issue; *i. e.*, into issued and outstanding, unissued, and treasury stock. Unissued stock is that which has been authorized but not yet disposed of. It merely represents the right to admit new stockholders and has no value in itself. It has no active stock rights and is not an asset of the corporation. It usually is reserved for various corporate purposes, such as the conversion of bonds or the purchase of new lines or plants. Treasury stock, on the other hand, is best described by Wood in words which have been frequently quoted: It is stock "issued and outstanding which has come into the possession of the corporation which issued it by purchase, donation, or in liquidation of a debt. If it has been issued full-paid it remains so, even if sold again below par, and it is considered an asset of the corporation for bookkeeping purposes. But such stock, so long as it is held by the corporation or its representatives as treasury stock, neither participates in dividends nor in the meetings of the corporation as treasury stock; though it still represents a paid-for interest in the property of the corporation." Treasury stock is issued, but is evidently not outstanding. Examples most frequently occur in mining companies, though there the term is usually misapplied, being used to describe unissued stock

in the company's treasury. Among industrials holding a considerable amount of treasury stock may be mentioned the United States Cast Iron Pipe and Foundry Company, the Pacific Coast Company, the American Beet Sugar Company, and the Pittsburg Brewing Company.

Stocks can also be classified according to whether they are full-paid or assessable. Full-paid stock is simply that which has been fully paid for as required by law in money, property or labor. The certificates of such stocks are issued stamped "full-paid and non-assessable," and, in the absence of any special statute on the subject, carry with them no legal liability. Assessable stock, on the other hand, is that which has not been fully paid for by its subscriber. Just as Boston is the home of many mining shares with a par value of $25; so it is also the market for many assessable shares. Calumet and Hecla stock has paid in only $12 on a par value of $25; Franklin, $10.20; Tamarack, $13; Allouez, $22.25; Wolverine, $13, etc. Similarly, in the Metropolitan Securities Company, one of the constituent corporations of the Interborough-Metropolitan Company, only $75 has been paid in on a par of $100; the Philadelphia Electric Company, only $15 on a par value of $25; the Union Traction Company of Philadelphia, only $17.50, though it is now receiving a guaranteed dividend of 6 per cent. on its $50 par value. It should be emphasized, however, that outside of mining and public utilities corporations, assessable shares are comparatively few. Very few instances of such stock are listed on the New York Stock Exchange. The legal status of assessable stock is such that creditors of the corporation can hold the owners of the shares liable for the difference between the amount actually paid in and the par value of the stock.

Turning next to a discussion of the various features of common and preferred stock, we find that the classification, to be complete, must be very elaborate. An outline is inserted on page 47 to enable the reader to follow more readily the following classification.

"Common stock," meaning the junior issue, when there is preferred stock, or stock analogous to preferred, sometimes has a real preference in regard to voting, for there are instances where the preferred gives up the right to vote as a consideration for its receiving regular dividends. The usual provision is that if such disbursements are discontinued for a certain period, varying with the indi-

vidual corporation, the preferred stock shall resume its voting power. Leading corporations in which the common stock has exclusive voting power, under the foregoing conditions, are American Smelters Securities, American Tobacco, Interborough-Metropolitan, Royal Baking Powder, and United Cigar Manufacturers' Company. All of them, with the exception of the Interborough-Metropolitan Company, have maintained regular dividends; the latter defaulted in its obligations toward its preferred stock in 1907, so that at the present time this issue has full voting rights.

Classifications of Stock Certificates According to the Rights and Limitations Attaching to Various Types of Stocks.

1. Common.
2. Deferred.
3. Preferred, as to
   - Dividends (always)
     - Cumulative (industrials, generally).
     - Non-cumulative (railroads, generally).
   - Assets
     - Railroads (not often).
     - Industrials (generally).
   - Voting power
     - Exclusive (seldom).
     - Special (often).
   - Other features
     - Callable.
     - Convertible.
     - Participating.
4. Stocks analogous to Preferred
   - Interest-bearing.
   - Special stock.
   - Guaranteed.
   - Founders'.
5. Debenture.

Common stock generally has the right to receive all the surplus remaining for dividends after the preferred has been paid its stipulated percentage; and in a growing country such as the United States this feature is valuable, provided there is any worth in the company. The Union Pacific Railroad common receives 10 per cent., but the preferred is forever limited to 4 per cent. The American Tobacco Company began with a regular 6 per cent. dividend on the preferred and 20 per cent. on the common, but increased the amount paid

on the common almost annually, until now it stands at 35 per cent. These two companies are exceptional, but there are scores of well-known corporations, such as Atchison, American Light and Traction, American Radiator, American Snuff, H. B. Claflin Company, Eastman Kodak, and Philadelphia Company, to name only a few, where the common receives more, and frequently a great deal more, than the preferred. It is to be noted, however, that in some cases the preferred participates in the surplus left after dividends of a certain percentage on the common have been paid. This class of preferred stock, and its relation to the junior issues, will be treated later in its appropriate place. It is evidently not an advantage to the common stock to have such preferred stock ahead of it.

Common stock usually has the right to share equally with the preferred in the corporate assets on the dissolution of the company. In many cases, however, especially the New Jersey industrials, which include practically all the large "trusts," the preferred stock has a preference in this respect. It is evident that in corporations where the common stock receives a large dividend, as those named in the preceding paragraph, that on the distribution of the property producing such a revenue the common would receive more than the preferred. Conversely, if the company were weak, and especially if preferred dividends were in default, it is easily conceivable that the common would receive little or nothing, as in the latter case all back cumulative dividends are generally treated as an additional part of the preferred capitalization.

"Deferred" stock is an issue commonly used in England, but only infrequently met with in the United States. The name itself is largely explanatory of its nature. It is an issue on which dividends are deferred until dividends on some other variety of stock, or interest on some particular bonds, have been paid. The common stock of companies possessing this issue is usually divided into two parts—one, the "B," or ordinary stock, and the deferred, or "A" stock, which receives no dividends until a certain fixed rate has been paid upon the "B" stock. Both of these issues are junior, of course, to the "preference stock," as it is called in England. The corporations which possess this class of stocks are usually English either in their inception, location or management. In this country we may mention Arizona Copper, and the Alabama, New Orleans, Texas & Pacific Junction Railways, Limited, as examples. The

old Alabama Great Southern Railroad, which was merged into an American company of the same name in 1906, and the National Railroad of Mexico, merged with the Mexican Central in 1908 into the National Railways Company of Mexico, both possessed this feature. None of these issues, however, has ever been of importance on the stock exchange.

Having explained the nature of deferred stock, we may now consider *preferred* stock. This class may have a preference in any one, any two, or all three, of three particulars; *i. e.*, dividends, always; assets, generally, and voting power, at times. It may also be "callable," "convertible," or "participating."

Such stock always has a preference over the common as regards dividends, which may be either "cumulative," or "non-cumulative," the former being in the nature of a fixed charge, because if the corporation is unable to pay the dividend in one year, it must be paid in succeeding years, together with the dividends for those years, before the common can receive anything. No such duty attaches to non-cumulative stock. If the dividend cannot be paid this year, the rights of the common to share in next year's earnings are in nowise impaired. "Railroads are non-cumulative, industrials generally cumulative," so runs the rough-and-ready distinction. It is hardly exact, since, as the following table shows, there are numerous railroads that have a cumulative dividend feature in their preferred stock issue:

Name.	Amount of Preferred Stock Outstanding.	Cumulative Rate.	Remarks.
Allegheny Valley	$17,174,000	3%	Mostly exchanged for Pennsylvania R. R. stock.
Central Pacific	13,600,000	4%	
Chicago & Alton	879,300	4%	"Prior lien and participating stock."
Cincinnati, New Orleans & Texas Pacific	2,453,400	5%	
Rutland	9,057,600	7%	About 180% in arrears.

It is of importance to notice that of late it seems customary in railroad reorganizations to insert a cumulative clause for the preferred stock in the new charter. But dividends do not become cumulative for a few years, in order to give the road an opportunity to

become firmly established before it must meet the fixed cumulative dividend obligation. Pere Marquette first preferred stock, to the extent of over eleven millions, becomes a 4 per cent. cumulative issue after June, 1911; Chicago, Great Western preferred, over forty-one millions, is to be 4 per cent. cumulative after June, 1914; the Seaboard Company, the holding corporation for the Seaboard Air Line, is to give 5 per cent. cumulative dividends, after July, 1910, on its issue of over six millions of first preferred. In fact, there is over $150,000,000 of preferred railway capital that is now, or soon will be, receiving cumulative dividends. But this amount, large as it may seem, is relatively small, compared with the total of more than $1,500,000,000 of preferred stock of American railroads outstanding.

The general rule referred to a moment ago is correct in stating that industrial preferred stock issues are generally cumulative, since about two-thirds of them contain this feature. Among the important corporations that have *not* included this cumulative feature may be mentioned: American Car and Foundry, American Linseed, the Pacific Coast Company issues, Pressed Steel Car, Sloss-Sheffield, and United States Rubber, first and second preferred. These companies, however, are not important relatively in their aggregate capital when compared with American Smelting, American Sugar, American Tobacco, United States Steel, and other large issues, which contain the cumulative feature. The non-cumulative preferred shares among industrials generally represent corporations not of the first rank. The large companies—the "trusts"—had to make their preferred stock attractive to investors by adding the cumulative feature when they came to market their securities in the great era of trust promotion.

Under the subject of common stocks, the preference as to assets on dissolution which the preferred often enjoys was spoken of. This feature is quite general, as was there stated, among industrials, but not common in the case of railroads. The following important railway systems, however, have incorporated this feature in their charters: Atchison, Chicago & Alton, Chicago Great Western, Hocking Valley, National Railways of Mexico, first and second preferred in order; Norfolk & Western, Pere Marquette, Rock Island, and Seaboard Company. In this list will be noted the three recently reorganized corporations which have cumulative dividends. Evi-

dently it is becoming customary to give the preferred stock of new railways as many benefits as possible. In the case of industrials it is advisable to reverse the classification, as was done under dividends, and name only those stocks which are *not* preferred as to assets, viz.: American Sugar, Philadelphia Company, Pittsburg Coal, and United Railways of St. Louis. Practically every large industrial concern has its preferred stock protected by giving it this preference should it ever become necessary to distribute the corporate assets. This, of course, will generally be an advantage, but in the case of very strong companies it may not be, as has already been pointed out. To obviate this a few concerns, all unimportant, have provisions like the Merchants Warehouse Company, to the effect that the preferred stock has the first claim on all assets up to $100 a share, and then shares the balance with the common after that issue has received $150 a share. As stated before, according to the laws of the State of New Jersey, under which most of the large industrials have incorporated, preferred stockholders are to receive preference in the distribution of corporate assets on dissolution, up to par, the balance going to the common stock (Act of 1896, sec. 86, ch. 185). In a few instances the preferred stock has a preference to an amount over par. Dominion Coal, for example, is preferred up to $115 a share. Electric Storage Battery, on the other hand, is only preferred up to $10 a share, although the par value is $50. In most cases, too, unpaid cumulative dividends must be settled for out of assets before the common stock can receive anything.

The superior voting right which the common stock sometimes possesses has already been spoken of. The preferred, likewise, in some instances, carries the entire voting power, though not so often as the common, and generally in less important corporations. The Rock Island Company is the only example of first rank where the preferred stock has exclusive voting power. This fact was instrumental in the stock exchange investigation of the sensational rise in the common stock on December 27, 1909, and its equally sudden decline, for it conclusively negatived the idea of a "fight for control," and stamped the movement as purely manipulative. On the other hand, the preferred stock often has a voting preference in regard to special matters—usually in case of the creation or increase of funded debt, or the enlargement of the preferred issue

itself. More than a majority of the issue, usually two-thirds to three-fourths, is required to sanction such changes. The following preferred stock issues, among others, may be cited as possessing such features: Atchison, National Railways of Mexico, Norfolk & Western, Reading, both first and second preferred, Southern, American Can, American Snuff, Central Leather, Interborough-Metropolitan, Sears-Roebuck & Co., United Cigar Manufacturers, etc. As a general rule, such provisions are not of great practical value.

Mention may be made here of the various classes of preferred stock, and the safeguard that is occasionally thrown around preferred dividends in the shape of what may be called "dividend funds." The difference between a first and second preferred stock is this: that while both are senior to the common, the first preferred ranks ahead of the second in regard to receiving dividends, and in some cases has priority as regards assets, also. Of the corporations whose stocks are active on the New York Exchange only about 5 per cent. possess two or more classes of preferred. Space will not permit the giving of a complete list of corporations having more than one issue of preferred stock. A few important corporations, however, should be mentioned as belonging to this class: Colorado & Southern, Erie, National Railways of Mexico, New York, Chicago & St. Louis, Pere Marquette, Reading, Seaboard Company, St. Louis & San Francisco, Wheeling & Lake Erie, American Smelters' Securities, Associated Merchants, H. B. Claflin Company, Chicago Railways, Pacific Coast, and United States Rubber. All of these corporations have two classes of preferred stock, except the Chicago Railways Company, which has three, as has also Concord & Montreal. No instance of a corporation having more than three classes of preferred stock has been found.

A few corporations have made provision for the accumulation of a certain fund out of which dividends on the preferred shall be paid during times of business depression, when earnings are not sufficient to meet such payments. The National Railways Company of Mexico affords an example. To insure semi-annual payments of 1 per cent. on the first preferred for three years from January 1, 1908, a separate fund of $1,800,000 of prior lien bonds and $1,200,000 of guaranteed general bonds was set aside, and these or their proceeds may be drawn upon to the extent that net profits

shall not be sufficient to make such payments. A similar provision attaches to the preferred stock of United Factories, Limited. United Cigar Manufacturers, and Sears-Roebuck & Co. have requirements that a surplus of $1,000,000, in each case, shall be accumulated before any dividend shall be paid on the common. This, of course, serves as a protection to the preferred stockholders, for if there were no such surplus when net earnings were little above the amount needed for preferred dividends, it might not be deemed advisable to declare such dividends, unless there were such a surplus fund to fall back upon for working capital. But, as said before, such provisions are infrequent.

It is proper to state here that what is commonly known as "preferred" stock need not necessarily, in many cases, be called by that name at all. Under the laws of many states, stock possessing the characteristics of preferred stock may be known by almost any name, so long as that name does not generally import some other variety of stock. Concord & Montreal has its stock divided into classes I, II, III and IV, class IV corresponding to common stock. In this case, however, the distinction is of very little practical account, because all four classes are guaranteed 7 per cent. dividends by the Boston & Maine Railroad. With the Chicago Railways Company, however, it is different, since its "participation certificates," series I, II and III, as explained previously, are really preferred, while series IV is common. At any rate, the immense majority of corporations call their preferred stock simply "preferred."

It should next be noted that preferred stocks may possess any one of three special features—they may be "callable," "convertible" or "participating." Very many preferred stocks are issued to procure money for corporate purposes on the inception of the company, when not much could be realized by the sale of common stock, and bonds could be marketed only at a discount. Such companies may have hopes that in time their business will so improve that by issuing bonds at a low interest rate, or by selling additional common stock, they can retire the preferred stock, leaving the common stock in a much better position. Hence the callable feature may be inserted. This is never obligatory on the corporation, but merely optional with the directors. It is the opposite of the "convertible" feature, which depends on the stockholders'

option. The following is a table of callable preferred stocks, showing their provisions as to the time of redemption, and the calling price. If no time is specified, the company's option is understood.

TABLE OF CALLABLE PREFERRED STOCKS.

Railroads.	Time.	Price.	Remarks.
Chicago Gr. Western		Par and div'nds	"If and when allowed by law."
Erie, 1st and 2d p'f'd		Par	
Hocking Valley		Par	
Reading, 1st p'f'd		Par	
Reading, 2d p'f'd		Par	"If and when allowed by law."
Seaboard Co., 1st p'f'd		Par	
Seaboard Co., 2d p'f'd	After 1912	110	"Provided 1st preferred has been redeemed or converted."
Industrials.			
American Cotton Oil		105	
Am. Cities Ry. and Light	On any dividend date	107½ and div'nds	
Am. Smelters, Secs. "B"	After 1930	Par	
Amer. Typefounders	On 30 days' notice	105	"Only by vote of two-thirds of directors."
Borden's Cond. Milk		110	"All, or any."
Consolidated Gas, of Baltimore		120 and div'nds	
Dominion Coal and Iron	After May 1, 1910	125 and div'nds	If not previously converted into common.
Dominion Iron and Steel	On 3 mo's' notice	115 and div'nds	Subject to conversion for 30 days after notice.
General Asphalt	On 90 days' notice	110	Subject to conversion during period of notice.
Michigan State Telephone	Feb. 1 of any year	Par and div'nds	
National Lead		Par	
Sears, Roebuck & Co.		125 and div'nds	"All, or any."
United Railways Investment		110 and div'nds	

A much larger list could be compiled, but it is better to present only typical or fairly large companies. The industrials are generally redeemable at a premium, and are hedged with definite provisions regarding the time at which the company may exercise its right. The railroads, on the contrary, are nearly always callable at par, and at any time the company may choose. It is generally considered a disadvantage to have a stock callable, as the holder must then seek new fields for his capital, usually just when the investment begins to look attractive. A company never calls stock when it is in difficulties; Tonopah, of Nevada, called its preferred just before it began dividend payments on the common; and Northern Pacific, which was called at par, January 1, 1902, had been paying dividends only a few years.

On the other hand, it is usually advantageous to possess a *convertible* stock. Here the option is with the stockholder, not with the company. The Reading Company's second preferred stock is an exception, being convertible into one-half first preferred and one-half common at par on vote of the directors. As the common is now selling about $30 above its par of $50, and the first preferred only a little below par, the convertible feature is valuable, and explains why the second preferred sells at a level considerably above the first. There is, however, a clause that is seldom reproduced in statistical works *i. e.* that the second is *callable* at par, "if and when allowed by law," which is apparently unknown, or if known, disregarded, by those who keep the second preferred at its present price level, in the hope that the directors will allow conversion. It reminds one of the story, probably untrue, that Mr. Harriman did not know, when he bought Northern Pacific preferred, that the stock could be called, before the directors took that action. Certain it is that their power so to do was never paraded before the public, and it lay, a secret to the "outsiders," in the recesses of the railroad's charter.

Among industrials, Allis-Chalmers preferred stock is convertible into common at par, but, of course, no one is doing so, as the common is selling around 12, and the preferred about 40. Associated Merchants first preferred stock is convertible into second preferred or common stock at par while the books are open; Dominion Coal preferred, into common at par before May 1, 1910; and Dominion Iron and Steel preferred into common at par, and at any time.

Electric Storage Battery allows conversion on the same terms as the Dominion Iron and Steel Company, and practically all of the preferred has been converted. The General Asphalt Company allows conversion on the basis of $150 common stock for $100 preferred; and the Hudson & Manhattan Railway, into common at 110, after July 1, 1911. The list is not so long as that of the callable preferred issues. Southern Pacific, on July 15, 1909, gave its preferred stockholders three options; $115 in cash, or $20 cash and $100 in 4½ per cent., twenty-year debenture bonds, or conversion into common, par for par. Practically all of the holders of the preferred issue availed themselves of the conversion privilege. The holders took a stock paying 1 per cent. less dividend than they formerly received, but the company has as large possibilities before it as Union Pacific did a few years ago, and they undoubtedly will be rewarded in the end, for they now have a "general" stock, which has the right to all earnings after interest charges have been met. The conversion feature as attached to bonds is old and much employed, but when connected with preferred stocks is comparatively recent, and has been criticised in court decisions.

The participating feature of certain preferred stocks is comparatively unknown to the public; yet it is of the utmost importance, for it is practically only in this class of preferred stocks that the holder has an income unlimited except by the company's earning power. In cumulative preferred stocks he is nearly always limited to his fixed percentage, but here he shares with the common stock the surplus remaining after a certain amount has been paid on that class. Following is a table showing the principal railroad and industrial companies that have included this feature, together with the terms of the participation:

TABLE OF PARTICIPATING PREFERRED STOCKS.

Railroads.	Preferred Receives.	Then Common Receives.	After Which.
Buffalo, Roch. & Pittsbg...	6%	6%	Both share pro rata.
C., M. & St. Paul	7%	7%	Both share pro rata.
Chicago & Northwestern ..	7%	7%	Preferred 3%, then common 3%, then share pro rata.
C., St. P., M. & O.	7%	7%	Both share pro rata.
Hocking Valley	4%	4%	Both share pro rata.
Iowa Central	5%	5%	Both share pro rata.

Railroads.	Preferred Receives.	Then Common Receives.	After Which.
Lake Erie & Western	6%	6%	Both share pro rata.
Minn. & St. Louis	5%	5%	Both share pro rata.
M., St. P. & S. S. M.	7%	7%	Both share pro rata.
N. Y. C. & St. L., 1st p'f'd.	5%	5%	Second preferred 5%, then *all* share.
Pittsburg, Clev., Cinn. & St. Louis	4%	3%	Preferred 5%, then common 5%, then share.
Wabash	7%	7%	Both share equally.
Wisconsin Central	4%	4%	Both share equally.
Industrials.			
Allis-Chalmers	7%	7%	Preferred receives 1% extra.
Associated Merchants, 1st and 2d preferred........	7%	7%	Both preferreds receive ½% for each 1% paid on common over 7 %.
Consolidated Traction	6%	6%	Both share equally.
Electric Storage Battery ..	1%	1%	Both share equally.
Pacific Coast, 2d preferred.	4%	4%	Both share equally.
Westinghouse Electric	7%	7%	Both share equally.

Among the railroads, Chicago & Northwestern preferred stock is now receiving 1 per cent. additional, and the same is true of the Pittsburg, Cincinnati, Chicago & St. Louis Railroad. In the industrials, Pacific Coast second preferred is now on a 5 per cent. basis with the common; Electric Storage Battery has 4 per cent. paid to it instead of 1 per cent.; Westinghouse Electric for four years before the panic of 1907, which threw it into the hands of a receiver, was paid 10 per cent., and is now paying its regular 7 per cent. In a few of these companies, such as Allis-Chalmers or Wabash, the participation feature is of little value, as there is small chance that earnings will ever permit of any payments at all on the common. However, most of the corporations, whose preferred stocks are not now participating with the common, are paying regular dividends on their senior issue, and there is a fair prospect that in time, as the country develops and grows richer, the earnings will so increase that the right to participate with the common in surplus earnings will be a valuable feature of the preferred. The same remarks apply to conversion, which may not be advisable now, but which, with the onward march of this "bull" country, as it has frequently

been termed, will in the future become a prized feature of stock that has been bought for the "long pull."

Following our classification of stocks we may now consider those stocks which are analogous to preferred. The first of these is interest-bearing stock which is really only another name for preferred stock. For interest (instead of dividends) must be paid upon it before there can be any disbursements on the common. Paradoxical as it may seem to the idea of a stock contrasted with that of a bond, the payment of interest may be enforced at law, as the subscription to the stock is regarded "as a contract in the nature of an agreement to pay a dividend, but is lawful only when it can be construed as requiring payment of such interest from profits alone." Such issues are obsolete to-day; no examples are found in the various manuals. There is no reason, however, why a corporation should not issue such stock, should it deem it advisable. From the records we have selected the following examples:

Detroit & Milwaukee, acquired by the Great Western of Canada, which in turn was absorbed by the Grand Trunk.

Cleveland & Toledo, leased to the Cleveland, Painesville & Ashtabula, which was consolidated with the Lake Shore.

Vermont & Massachusetts, leased to Boston & Maine.

Pittsburg & Connellsville, merged with the Baltimore & Ohio.

Pittsburg & Steubensville, acquired by the Steubensville & Indiana, which was taken over by the Pittsburg, Chicago & St. Louis, which was ultimately absorbed by the Pennsylvania Company.

Troy & Greenfield, acquired by the Troy & Boston, which was taken over by the Fitchburg, which in turn was leased to the Boston & Maine.

All of the above companies were comparatively small, and all have been absorbed by larger systems, generally leaving no trace of their stock. Consequently, the subject is of but little more than academic interest.

"Special stock" is a creation of certain Massachusetts statutes, especially the Acts of 1855 and 1882. Under the latter enactment, manufacturing "and other corporations," by vote of three-quarters of their stockholders at a meeting called especially for this purpose, may authorize "special stock," which must never exceed two-thirds of the actual capital, bearing semi-annual dividends not exceeding

4 per cent., and subject to redemption at par after a fixed date, which must be expressed on the certificate. The holder of such stock is in no case liable for the debts of the corporation. Instances of such stock crop out now and then because of lawsuits over the rights of their holders, but as these generally only occur after the insolvency of the corporation, they are of little use if we wish a present example. The Boston Machine Company had such stock, as did the Greenfield Tool Company, but both are defunct. The nearest modern analogy is a callable preferred stock, but it also resembles in some ways a short-term note, for the obligation to pay dividends is absolute, not, as in interest-bearing or ordinary preferred stock, contingent on there being sufficient profits so to do, and it is also usually redeemable in a short time.

"Guaranteed stock" is a term properly applied to the stock of a company, the dividends on which are guaranteed by another corporation, provided there are sufficient earnings to meet them, but not otherwise. It is sometimes erroneously employed as describing preferred stock, *i. e.*, the corporation guaranteeing the dividends on its own stock. Guaranteed stocks usually arise from a consolidation or lease of one road, or industrial corporation, with or to another, and are much more frequently found in the case of railroads than industrials. A full list of all the guaranteed stocks in the country would occupy pages, and thus only a few important examples are given:

Railroad	Guarantor.	Terms.
Catawissa	Reading	5% on stock, and $8,000.
Central of Vermont	Grand Trunk	Traffic guarantee.
Cleveland & Pittsburg	Penna.	7% on stock, and bond interest.
Concord & Montreal	B. & M.	7% on stock.
Delaware	P. W. & B. (Penna.)	Net earnings.
Fitchburg	B. & M.	5% on preferred, 1% on common, bond interest and expenses.
Old Colony	N. Y., N. H. & H.	7%, and stock convertible into New Haven.
Pittsburg, Ft. Wayne, etc.	Penna.	7% on stock, and on "special improvement," etc.

Among industrial corporations guarantees of stock are rare. American Smelters Securities, preferred "B," is the only example of

importance. They are generally confined to public service corporations. Most guarantees are successful—the guarantor maintaining the dividends promised. Some are not, but there are few as bad as the lease of the Pere Marquette to the Cincinnati, Hamilton & Dayton for 999 years, in March, 1905, for 5 per cent. on the common and 4 per cent. on the preferred of the former, both companies going into the hands of a receiver in December of the same year. The lease was subsequently annulled. It argues a close study of the earnings and financial condition of the company itself, a careful scrutiny of the affairs of the guarantor, and not the mere acceptance of the word "guarantee" as proof of the possession of a gilt-edged investment.

The leased-line stock of the Illinois Central, amounting to $10,000,000, and paying 4 per cent., secured by the deposit of stocks of equal value, compared with $123,552,000 common, may be said, in a sense, to be "guaranteed," though it is not within the definition given above. Similarly, the stocks with provisions for the accumulation of special funds, or surpluses, mentioned before, have something *in the nature* of a guarantee, though they are evidently not "guaranteed."

"Founders' stock" is practically unknown in this country. No instance can be found in the manuals, though it may exist in small corporations. Briefly, it may be said to be stock ranking ahead of preferred, entitled to a certain fixed dividend and then to a certain proportion of the surplus after dividends on all classes have been paid. Assume a corporation with $100,000 6 per cent. founders' stock, $4,900,000 6 per cent. preferred, and $5,000,000 common stock, and a balance for dividends for the year of $1,000,000. The founders' stock would receive $6,000, the preferred $294,000, and the common, say, $250,000. The surplus for the year would then be $450,000. The founders' stock is entitled to a certain proportion of this—fixed by the articles of incorporation—usually one-quarter to one-half. Thus, in addition to its 6 per cent., this class would be paid from $112,500 to $225,000, making an extra dividend of from 112½ to 225 per cent., according to the proportion of the surplus it would receive. If we were to capitalize the last figure at 6 per cent., the stock would be worth about $3800 a share. There are other provisions concerning the method of arriving at the amount to be distributed in dividends, but this is the

most usual. It was formerly common in England, but is now looked upon with disfavor. Such stock is usually given to promoters, or to persons of influence in consideration of their lending the weight of their names to new corporations, and is, naturally, highly valued by its fortunate possessors. Under the laws of New Jersey it is legal to create such stock, but published instances are wanting.

Having described the various classes of preferred stocks and their characteristics, and those analogous to preferred issues, there still remains for discussion the so-called debenture stock. This class of stock may be said to be on the margin between mortgage bond issues and regular stock issues. To the ordinary person a "debenture" signifies a non-mortgage bond. But it is also used to describe a stock. The whole amount secured may be "treated as borrowed capital consolidated into one mass for the sake of convenience," and certificates issued entitling the holder "to a certain sum, part of this mass." It differs from stock in that the company promises, generally in the form of a covenant, to pay interest on specified dates. This interest has priority over dividends on any class of *stock* whatever, whether guaranteed or not. Such issues are common in England and Canada, but rare in the United States, though debenture bonds are well known here. The old Chicago Great Western Railway had such an issue, which, as it should, fared much better in the reorganization than either of the preferred stocks. The Green Bay & Western Railroad has two classes of debentures—class "A," $600,000; class "B," $7,000,000—compared with $2,500,000 of common stock. The Canadian Pacific, also, has a large issue of irredeemable debenture stock—for such stock may be thus issued, or with provisions providing for redemption after a certain date. The Canadian Northern Ontario has debentures to be paid off in 1936, while those of the Canadian Northern Quebec are perpetual.

Throughout this classification nothing has been said of values, the present task being mainly one of exposition, and not of advice. In closing, we express the hope that intending purchasers will look well to the class of stock in which they contemplate investing, examining *all* of the provisions of that particular issue; consulting, if necessary, the articles of incorporation of the company. Only by knowing the provisions of the stock certificate—is it callable or

convertible, participating or not, preferred as to assets, etc., and any other special features that may exist—can an investor be prepared, not only to avoid losses, but to gain safety and profits. A fundamental error in regard to the features of the stock may defeat the results of the most painstaking analysis of value, and when such provisions can usually be so easily ascertained, there is no reason for encountering risks, or allowing profits to escape that might otherwise accrue.

PREFERRED STOCKS AS INVESTMENTS

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The modern security investment field is so broad that intelligent knowledge on the part of the average investor can only be gained by following the opinions of those who specialize in their study of the different classes of investments. Twenty-five years ago it was comparatively easy to acquire a sound knowledge of the general investment field, and to pass judgment on the stock and bond issues which made up the bulk of the market transactions in those days.

But with the great development in corporate enterprise throughout all lines of production and distribution, which has been the chief characteristic of the last generation, the different types of securities have multiplied in number to an almost unlimited extent. While as late as 1890 a general opinion could be safely passed on stock investments as a class, the different types of stocks which are daily sought for investment nowadays are often so different in their characteristics and general position that not only must each class be judged by itself, but a great many issues of the same general class have distinct traits which go far to affect directly their position and value as investments.

Generally speaking, a preferred stock of a railroad or other corporation is in a more desirable investment position than is a common or ordinary stock. But this is not universally the case, and there are numerous issues of ordinary or common stocks which are more attractive as investments than even the preferred stocks or bond issues of the same corporations.

A preferred stock is ordinarily an issue which is limited in authorized amount, and has a preference in its claim on the divisible profits of the corporation up to a certain percentage. In some cases a preferred stock will have a prior claim on the assets of the corporation, so that in the case of dissolution preferred stockholders would

be satisfied up to the par value of their shares before the common stockholders received any of their principal.

In the railroad investment field it will be found that preferred stock issues abound with different characteristics which bear on their interest in the properties or in its profits. Thus, a preferred stock issue of the simplest type, like that of the Union Pacific Railroad, has a prior claim to dividends at the rate of 4 per cent. per annum, when earned, but has no interest whatever in any further amount of the profits which may in any one year be available for dividend distribution. An issue of this kind also has a prior claim on the assets up to its par value before the common stock comes in for any interest in the latter.

The terms of preference, as outlined for the Union Pacific Railroad above, are the ones which have usually been followed in the formation of the large railroad corporations during the past ten or fifteen years. Many of the earlier railroad organizations, however, issued preferred stock which carried other rights as to both dividend payments and interest in assets, etc. For example, the preferred stock of the Chicago, Milwaukee and St. Paul Railway has a prior claim to 7 per cent. non-cumulative dividends, after which the common stock is entitled to receive 7 per cent., and thereafter both common and preferred stock share alike in any further dividend disbursements. In the case of the Chicago and Northwestern Railway, the preferred has a prior claim to 7 per cent., then the common stock to 7 per cent., then the preferred stock has a further preference to 3 per cent., then the common to 3 per cent. more, after which both stocks share pro rata in any further distribution.

In the case of the Erie Railroad there are two issues of preferred stock, each of which is respectively preferred as to assets, and also has preference to 4 per cent. non-cumulative dividends. A unique feature in the case of the Erie Railroad is that both the preferred and common stockholders share their voting power with the first consolidated mortgage bonds of the company. Another feature which is characteristic of this company, and of a number of other railroads, is that both of the issues of preferred stock are redeemable at par at the option of the company.

Other characteristics which differentiate the preferred stock issue from the ordinary kind are related to the voting power. While in the railroad field the great majority of preferred stock issues have

equal voting power with the common stock, some of them have not. For example, the Evansville and Terre Haute Railroad preferred stock issue is entitled to 5 per cent. non-cumulative dividends, but has no voting power whatever. In other cases we find that the voting power is limited to such time as that in which dividends are discontinued or not paid.

It will often be found that a preferred stock issue carries some convertible provision whereby it may, at the option of the holder, be converted into common stock of the same company. This provision was a characteristic of the preferred stock of the Southern Pacific Company, and the holder had the right, at any time, to exchange his shares for common stock. Usually, however, where a preferred stock is convertible into common, it is also redeemable at the option of the company itself at some fixed price. The Southern Pacific stock, above mentioned, was redeemable up to July, 1909, at the option of the company at 115, and was redeemed at the expiration of the option.

In the case of the Reading Company, we find that there are two classes of preferred stock, both being entitled to 4 per cent. non-cumulative dividends, and both being subject to call at the par value. But the further proviso is made that the company shall have the right, at its own option, to convert the second preferred stock, one-half into first preferred and one-half into common stock, at par. The result of this latter provision is that the second preferred stock of the Reading Company sells higher than the first preferred, for while both receive the same amount of dividends, the possibility that the second preferred may some day be converted one-half into the more valuable 6 per cent. common stock gives the issue an added market value.

Probably the most unique arrangement in the railroad preferred stock field is that which we find in the Rock Island Company. The preferred stock of this company is entitled to dividends at the rate of 5 per cent. up to 1916, and 6 per cent. thereafter, and the holders of the preferred issue have the right to elect a majority of the directors of the company. Thus, the company is controlled at all times by the preferred stockholders, for although the common stockholders have voting power, they can elect only a minority of the directors.

In the industrial field it will generally be found that the preferred

stock provisions are more uniform than in the railroad field. Most of the industrial corporations have been formed within the past ten or fifteen years, and the preferred stock issues in nearly all cases represented at the time of formation the physical value of the plants consolidated, while the common stock generally represented the capitalization of future profits or simple voting power. The great majority of the industrial preferred stocks carry prior right to 6 or 7 per cent. dividends, and in a number of cases the dividends are cumulative. Not many of the industrial preferred stocks are callable by the company at any fixed price, and a large part of them represent a first claim on assets, as there are few bond issues outstanding on the big industrial corporations as compared with the vast number of bonds which have been issued by the railroad systems.

In public utility enterprises we find a smaller proportion of preferred stock issues than among the industrials and the railroads. At the same time, it is true that within the past half-dozen years a good many public utility preferred stock issues have been created and are nowadays being sold and quoted in the investment markets.

In approaching the subject of stock investments, as distinguished from bond investments, the student should bear in mind certain fundamental facts which differentiate one class from the other. Briefly, a man who invests money in a bond issue is simply loaning his capital to the business, whereas he who invests in a stock is buying a part of the business. The ordinary stockholder in any corporate enterprise is in precisely the same position as the partner of a firm who is advancing a part of the capital. This is true whether the enterprise happens to be a steam railroad, an industrial or a public utility organization. The key to his position as a holder of the shares will always be the question of profits.

On the other hand, when a person loans funds to a business undertaking, and receives some sort of security therefor, the primary fact in which he should be interested is not necessarily the amount of profits, but the value and character of the property which is given as security for the loan. The purchaser of an ordinary bond in any corporate undertaking is in exactly this position. As the stockholder is the owner, the bondholder is the loaner.

But among these two general types of corporate securities there are many classes which partake more or less of the characteristics of both. In the characteristics of stocks the relationship to the

partnership principle is qualified in many instances and to great degree. Thus it is in the case of the stock which is preferred as to position. As indicated in the examples given above, the preference is often limited to a prior claim on the earning power or profits; in other instances this covers also the tangible assets of the corporation in the event of liquidation, and in still other cases it embraces also the voting power, the preferred stockholders sometimes having a voting privilege to the exclusion of all other stockholders and, at other times having no voting privileges whatever.

It will be readily seen that an intelligent estimate of the investment value of any preferred stock issue must involve the examination of much more than the mere legal or technical characteristics. It must involve, first of all, an examination of the earning power of the property itself. All the legal verbiage in the world will not give a preferred stock real value if the income of the corporation itself is not sufficient to assure the dividend payments, and if the equity back of the issue is not large enough substantially to exceed the par value of the principal. The technical characteristics of both Chicago, Milwaukee and St. Paul preferred and of Minneapolis and St. Louis preferred are much the same; but while the former sells at over 160 per share, the latter is quoted at less than half this price. In the one case, the full dividend is being earned several times over, and has been paid for many years, while in the other the full dividend is not earned, and no margin of surplus is reported on the rate which is being disbursed.

While a preferred stock is not a mortgage, and is in many ways essentially different from most bond issues, its investment position will often be affected by the same factors which affect the worth of a bond. For, like a bond, its income return is fixed, and no matter to what extent the net earnings of the property may grow, its dividend rate cannot be raised above the limit which the terms of its issue provide. A common stock, on the other hand, has a very direct interest in growing profits and in the expansion in the value of equities; and conversely is apt to be more directly affected by declines in profits and shrinkage in equity values. For illustration, take the case of Union Pacific preferred as a representative preferred stock issue and compare it with the common stock of the same company. The Union Pacific Railroad has shown practically steady growth in earning power and surplus for the entire ten years

past, and the property is worth at least double to-day what it was ten years ago. During this entire ten years the 4 per cent. preferred dividend has always been earned several times over, but its market value is no greater to-day than it was half a dozen years ago. On the other hand, very pronounced changes have taken place in both the dividends and market value of the common stock. The latter issue, not being limited as to dividends, has directly reflected the growth of the property in earning power, and is generally regarded as a more attractive investment to-day at 180 than it was at 60 ten years ago.

So it will be seen that the worth of a standard preferred stock issue, which is assured of its dividends, may easily lag far behind the junior common issue in connection with the growth of the property in value and earning power. While the weaker preferred stock issues, which are surrounded with speculative uncertainties, may naturally hope for future growth in value as the property itself develops, this cannot be said of those issues which have already reached a high investment plane. For as soon as the latter plane is reached they become directly responsive to the same influences which affect the average well-secured bond issue. The price changes depend primarily on other factors than that of the earnings of the corporation.

To illustrate this matter, let us consider the effect of general interest rates on securities of the higher investment type. Among the very best of the standard railroad bond issues are numbered Lake Shore 3½s, Chicago, Milwaukee and St. Paul 4s, Baltimore and Ohio 3½s and Union Pacific first 4s. The margin of surplus income back of all these bonds is enormous, and in recent years has been far heavier than was the case eight or ten years ago. And yet we see all these bonds selling from 10 per cent. to 17 per cent. below the quotations of 1901 or 1902. While the security has apparently been growing, the actual market value has been declining in response to the upward trend in the world's money rate. And precisely the same effect is shown in the cases of those preferred stock issues which are far removed from speculative influences, and which are entirely assured of their dividend payments.

In fact, there is a distinct divisional line running across the entire field of corporate investments which should always be clearly recognized by those who seek intelligent investment of funds. This

line does not follow the superficial division such as distinguishes a bond issue from a stock, or a preferred stock issue from a common stock. A bond, *per se,* is not necessarily any better or as good as a stock. Many preferred and common stocks are far superior in strength and value to many bond issues, and the mere fact that a bond is a mortgage, and that the holder thereof is legally entitled to a fixed return on the mortgage, will not of itself necessarily put him in a position of better security than that occupied by one who holds common or preferred stock in a corporation which is not a mortgage and which has only a junior claim on income.

The relative position of different securities in relation to the earning power results in dividing them into two great classes. These two classes may be briefly defined as follows:

1. Securities which are beyond or above the influences of fluctuating earning power, and

2. Securities, the values of which are almost exclusively affected by changes in earning power.

Preferred stocks which have heavy equities back of them, and which are entirely assured of their dividends, are, with high-grade bond issues, in the first class. Common or ordinary stocks, preferred stocks based on relatively small equities, and many junior or low-grade bond issues are of the second class. Even the very highest grade common stocks are not in the first class. Standard Oil, selling at 700; Delaware, Lackawanna and Western, selling at 600, are in the second group, just as is Erie common, selling at 27, or Wabash common, selling at 20. Changes in earning power and net income are steadily reflected in the prices of the latter issues, while changes in prevailing money rates and general conditions are regularly reflected in the prices of the other group.

It should, therefore, first of all be borne in mind that well-matured preferred stock issues possess little attractiveness from the speculative point of view. Like standard and tested bond issues, they are confined almost entirely to the investment field. But as investments they offer in many cases inducements of an exceptional nature. Many investors persist in confining their commitments to bond issues, simply because they have a vague notion that a bond is necessarily a sounder investment than a stock. For this reason, bonds which are relatively no stronger than certain preferred stocks often sell at much higher prices. They are sought for by estates,

institutions, savings banks and large investors to such an extent that often the average yield will be less than 4 per cent., whereas certain preferred stocks which really have greater inherent strength will be quoted on a basis to yield from 4½ to 5 per cent. For example, Baltimore and Ohio Southwestern 3½s will be quoted on a basis to yield but 4¼ per cent., when Atchison preferred will be selling at a price to yield nearly 5 per cent. For all practical purposes, Atchison preferred is fully as secure an investment as the bond issue mentioned, in spite of the fact that the bonds are a first mortgage on an important extension of the Baltimore and Ohio system. And in view of the difference in the income yield, the stock offers features of attractiveness that the bonds do not.

If we turn to the field of industrial preferred stocks, we will find this prejudice against preferred issues still further accentuated. Many of the larger industrial corporations have now been in existence for a decade or more. The permanence of their earning capacity has, therefore, been well demonstrated, and the records show in numerous cases steady expansion in earning power, in value of equities, and in general business stability. In more than one case the margin of safety above the preferred dividend requirement has been earned half a dozen times over for the entire decade. And yet we will find, as a rule, that these preferred issues are regularly quoted on a far lower investment plane than many of the railroad preferred issues which have a much lighter margin for protection, and decidedly under the prices of many semi-speculative railroad bonds whose future can by no means be regarded as entirely assured.

A case in point is that of United States Steel preferred. Even the most drastic falling off in business could hardly interrupt the dividend payments on this issue. Eight years ago this could not have been asserted, but since that day the Steel Corporation has so enormously increased its equities in natural resources, developed its organization, and invested such remarkable sums in manufacturing plants, railroads and terminals, without expanding its liabilities to any important extent whatever, that the payment of 7 per cent. on its preferred stock issue to-day is almost as fully assured as the payment of a like dividend on a railroad stock like St. Paul preferred. And yet, while St. Paul preferred is quoted on a 4 per cent. basis, Steel preferred still yields nearly 5¾ per cent. Many other parallel cases could be cited.

To sum up the question of judging preferred stocks as investments, let it first be said that each issue should be considered by itself in its relationship to the earning power of the corporation. If it is desired to speculate in future growth in profits, the lower grade preferred issues will be found frequently to offer inducements. If, however, true investment value is to be looked for, the investment should be confined to issues which are backed by available income equal to at least twice their dividend requirement. If they have shown results of this kind for a reasonable season, through a period of business depression or hard times, they can generally be regarded as in the class of safe investments, whether in the railroad or industrial field.

THE DECLARATION AND YIELD OF STOCKHOLDERS' RIGHTS

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Everyone is aware of the great expansion of America's leading railroad and industrial properties within the last fifteen years. During this time, much has been published concerning the unparalleled increase in mileage, earnings and profits, but few persons have definite knowledge of the exact return to a stockholder who has held capital stock for any length of time in these corporations. It will be the purpose of this article to show what would have been the yield to the stockholder who bought his shares at any given period in the open market.

A "right" is a privilege issued by a corporation to its stockholders to subscribe to its stock and occasionally to its bonds, at a price below the market quotation. This is what is meant when "rights" or "warrants" are referred to in our financial journals. But this is by no means the only benefit extended by corporations to their stockholders, since where stock is issued "free" or in the form of a dividend, an even greater distribution is made. In such instances it is the company itself that pays the par value of the stock from its accumulated profits, and the issue amounts substantially to the capitalization of a previously earned surplus. Where the surplus is not as large as the dividend declared, the company is usually capitalizing its future earnings. For example, at the close of the fiscal year of 1904, the Atlantic Coast Line Railroad Company had a surplus of approximately $13,500,000. In December, 1904, an extra dividend of twenty-five per cent (twenty per cent in stock and five per cent in four per cent certificates of the Atlantic Coast Line Company of Connecticut) was declared, reducing this surplus to about $4,500,000. Clearly, this was merely giving the stockholders what had been withheld from them in previous years. On the other hand, in December, 1868, the New York Central and Hudson River Railroad Company, with a capital

stock of $28,500,000 and a surplus of only $5,000,000, distributed to its stockholders gratis eighty per cent of their holdings, and again, in November, 1869, made another gift of twenty-seven per cent. At this period of its history, the earning capacity of the New York Central Railroad Company was enormous, and it was able to pay dividends even upon this increase of stock. But as this distribution was made on the basis of its earnings, and not from an accumulated surplus, it was purely "water" and it has only been within the last fifteen years that the company's earnings, which have been turned back into the property, have been sufficient to change this capitalization from its status of "water" to that of real capital.

That the method of raising capital and of distributing profits through the issue of new stock to its stockholders has been a very common practice is shown by the following table for a few of the many corporations which might be mentioned.

Name of Company	No. of times "Rights" were issued	Owner of 100 Shares in 1880 would have at present		
American Telephone and Telegraph Co.	3	200	Common	
Baltimore and Ohio R. R. Co.	4	209.3	"	
Canadian Pacific Ry. Co.	5	269.57	"	
Chicago, Milwaukee and St. Paul Ry. Co.	5	253.69	"	and 101.48 pfd.
Cleveland, Cincinnati, Chicago and St. Louis Ry. Co.	2	132	"	
Great Northern Ry. Co.	8	693	pfd. and 495 ore certificates	
Illinois Central R. R. Co.	8	363.32	Common	
New York Central and Hudson River R. R. Co.	5	245.2	"	
Pennsylvania R. R. Co.	9	384.76	"	
Northern Central Ry. Co.	3	225	"	
United Gas Improvement Co.	8	559.65	"	

In the foregoing table the first column gives the name of the company, the second states the number of times rights were issued since 1880, and the third shows the number of shares now held by an original holder of 100 shares who took advantage of all rights offered. Thus the American Telephone and Telegraph Company has doubled its outstanding stock; the Great Northern Railway Company has seven times as much preferred stock, not even taking

into account the enormous amount of ore certificates given to the stockholders, while the United Gas Improvement Company has nearly six times as much capital as it had in 1896.

The term "right" has a very different meaning on the New York Stock Exchange from that given on the Philadelphia Exchange. In the former city, a "right" means the privilege of one share to participate in the new issue. Thus an increase of twenty-five per cent in the capital stock gives each share of old stock the privilege to subscribe to one-quarter of a share of new stock, and it takes four old shares to purchase one new one. In New York, therefore, the holder of 100 shares owns 100 rights, which give him the option to buy twenty-five shares of new stock. In Philadelphia, however, a right means the privilege to subscribe to one share of new stock. Consequently, in the case of an increase of twenty-five per cent in the capital stock, the holder of 100 shares of old stock owns twenty-five rights, which give him the option to buy twenty-five shares of the new issue. On that basis, rights are quoted at four times as much in Philadelphia as they are in New York. To take the last instance, where rights or warrants were sold in both markets, namely, in the last issue of the Pennsylvania Railroad Company, the price of the rights in New York was $8 per $100 share, or really only $4 per $50 share. However, in Philadelphia the quotation was $16 per $50 share, or exactly four times the price in New York.

As is done when a dividend is declared, the books of the corporation are closed when rights are issued, and all those whose names appear as stockholders upon the registry books of the company on the designated day are entitled to subscribe to the increased stock. Up to that day, the old stock sells with the subscription privilege attached and the stock is said to sell "rights on." On the day the books are closed, the privilege is no longer open to the stockholders, but only to the holder of the rights or warrants that are issued by the company to its stockholders of record. On that day the stock and rights sell separately and the stock is said to sell "ex-rights."

It is very seldom that a corporation demands the entire payment for a new issue at once. Generally it is spread over a long period of time, giving the holder a greater chance to procure the

money necessary to pay for the new stock. In March, 1906, the Atlantic Coast Line Railroad Company increased its capital by issuing ten per cent in common stock at par, payment to be made in two equal instalments: one on or before May 10, 1906; the other on or before September 10, 1906. In lieu of the interest on the instalments, the stockholders were entitled to the full dividend declared in November, 1906. In another case, the Great Northern Railway Company, in 1907, spread the payments for the new stock over a period of a year and a half and allowed interest upon each instalment.

On the basis that all the stock offered is taken and added to the original holdings, the profit of the stockholder will vary as the price of the security fluctuates in the market. These changes in price are at times violent, and as will be shown later, have a marked effect upon the net profits of the stockholder. For this reason, to compute the returns fairly, quotations should be taken for a normal season—for last year, we may justly say around November 21, 1909.

But another element enters into the question upon the same hypothesis, that all the offerings of new stock have been taken by the stockholder. The dividend return upon the stock issued is usually at variance with the current rate for money and the difference between the two rates will be credited to the rights offered by the company. Suppose the holder of 100 shares of a seven per cent stock is offered the privilege of purchasing fifty new shares at par. To do this, he borrows money at the current rate of five per cent and adds the new stock to his original holdings. However, the company maintains the dividend at seven per cent, and the difference of two per cent or $100 is equivalent to an increased dividend of one per cent on the first purchase of 100 shares. This one per cent, plus the seven per cent regular dividend, makes the real cash return eight per cent on the original 100 shares. If the person had not owned the original stock and thus secured the rights offered by the company, he could not have invested his money at any such rate, and it is only fair that the increased yield should be credited to the first purchase. Similarly, if the rate were only three per cent, instead of seven per cent, the difference would be a loss and would be a decrease upon the return of the original 100

shares. Therefore upon an analysis of the return to a stockholder from rights over a given period of time, it will be found to include three subdivisions:

1. The value of the new stock at the market quotation, less the amount of the subscription price.

2. The fluctuation in the price of the original purchase.

3. The cash yield.

The method of permitting subscriptions to new stock at a price below the market quotations and of continuing the former dividend upon the entire amount issued, is an excellent plan for the distribution of large earnings to a corporation's stockholders. When a company desires to make permanent improvements, it can issue a long term bond at a rate below that paid by most standard stocks. This difference would go to swell the surplus earnings of the company and would eventually lead to a higher rate of dividend upon its stock capitalization. Instead the rate is kept comparatively low and the increased earnings are also divided. But it is not to be supposed that the benefits accrue only to the common stockholders. Indeed it is safe to say that the results are shared pretty generally by every security holder of the corporation. The presence of a large number of stock authorizations to-day point significantly to the fact that those companies are on the whole compelled by necessity to adopt this mode of raising capital. Money is dear, bond issues are difficult to float, and the average investor is unwilling to put any more money into construction, unless a little larger return, speculative though it may be in character, is apparent to him. Whenever such a state of affairs is general in the country, we have the corporations and particularly the railroads applying to their stockholders for aid. Such a flotation of securities immensely strengthens the safety of the bonds already issued. Dividends are not fixed charges and a road cannot be forced into a receivership because the rate must be lowered or abandoned during periods of business depression; whereas if bonds had been issued and the coupons not paid, the penalty would have been inflicted. Thus in every way the security and stability of the company is strengthened by the increase of stock for the purposes of refunding or construction.

The method of computing the value of rights is comparatively

simple. Let us take the last issue of new stock by the Pennsylvania Railroad Company, where the stockholders were allowed to subscribe to twenty-five per cent of their holdings at par. The common stock was at that time selling at $71.00 per share.

100 shares at $71.00 per share	$7,100	
25 shares at $50.00 per share	1,250	
Total cost of 125 shares		$8,350
Average cost of one share		$66.80

Deducting $66.80, the average cost per share from $71.00, the market quotation for the old stock, leaves $4.20 as the value of the right on each share of Pennsylvania Railroad stock. In New York, however, Pennsylvania shares sell on a percentage basis and the price of the right on the exchange was consequently doubled. As a matter of fact, the rights sold the next day for $8.25. The price of rights is usually a little below the ascertained value, due to the element of time, interest and arbitrage.

This leads us to a very interesting practice. Many holders, being unable to pay the amount called for by the terms of the subscription, sell their rights to arbitrageurs. These arbitrageurs, immediately upon the purchase of these rights, sell an equivalent amount of full-paid stock, and after having paid the specified instalments, they make good their delivery with these new shares. Reverting again to our illustration of the Pennsylvania Railroad Company, suppose an arbitrageur bought 100 rights at $4.00 per right with the intention of paying the subscription price. This would give him twenty-five shares of new stock, costing in all $1,650, or $66 per share. However, when he bought the rights he sold "short" twenty-five shares of Pennsylvania in the open market at $66.50 per share. From now on his profits are practically assured him and he will make fifty cents per share, less the amount of the ordinary expenses.

The greatest benefits from rights have been derived where the holder has held his stock for a considerable length of time and taken every subscription offered. If he sell his rights in the open market, when the next issue is made, he can only receive the fixed percentage upon his original holdings and thereby loses the real profit. It is needless to say that any increase of capitalization

is based upon the total last issue and so, if the holder takes every subscription privilege that is offered, he will continually get rights upon rights. Take the Great Northern Railway Company for example. This road has made eight capital increases since 1893. If the holder of an original 100 shares had sold each right as it was offered, he would have parted with the privileges to 240 more shares of the preferred stock, together with 100 ore certificates. But, by holding the stock, and taking the rights upon rights, he would own to-day 693 shares and 495 ore certificates. This can be shown as follows:

Original purchase in 1893	100	shares
25 per cent increase in 1893	25	"
Total shares in 1893	125	"
100 per cent increase in 1898	125	"
Total shares in 1898	250	"
20 per cent increase in 1899	50	"
Total shares in 1899	300	"
10 per cent increase in 1900	30	"
Total shares in 1900	330	"
25 per cent increase in 1901	82.5	"
Total shares in 1901	412.5	"
20 per cent increase in 1905	82.5	"
Total shares in 1905	495	"
100 per cent ore certificates in 1906	495	ore certificates
Total holdings in 1906	495	shares
and 495 ore certificates.		
40 per cent increase in 1907	198	"
Total holdings in 1907	693	shares
and 495 ore certificates.		

In addition to the greater increase in the amount of stock procured, in a railroad like the Great Northern, the subsequent rise in price of the stock made those new shares worth more than when issued. Of course this condition may be reversed and the stockholder may suffer considerably by the subsequent decline in the market value of the security. This is typified in many instances, particularly where the stock was bought during the boom times of 1902 and 1906, as shown in the following table:

Company	Date	Price then	Price Nov. 21, '09
American Telephone & Telegraph Co.	1902	180	144
Atlantic Coast Line R. R. Co.	1906	164	137.5
Great Northern Ry. Co.	1905	314	142
New York Central & Hudson River R. R. Co.	1902	160	135
Pennsylvania R. R. Co.	1901	80	66

The only two important instances, where the stock suffered a loss from every right issued are the Missouri Pacific Railway Company and the Cleveland, Cincinnati, Chicago and St. Louis Railway Company. These examples are indeed striking since not only is the original purchase of 100 shares below the price paid, but also the new issues secured through "rights" are selling considerably below the subscription value.

The tables appended hereafter are all computed on the same plan and for purposes of explanation, the Baltimore and Ohio Railroad Company will serve as an example.

In the table on page 80, the first column is for the date of the issue of rights, and opposite in the column headed "Quantity" is given the amount of the authorized increase of the new stock, together with the price at which the stock was issued. Straight across on the same line is the amount of stock held in the year marked at the top of that column. Thus, in 1900, the purchaser would have had $116^2/_3$ shares (100 shares original purchase plus $16^2/_3$ per cent increase); in 1901—140 shares ($116^2/_3$ shares plus 20 per cent increase); in 1902—182 shares (140 shares plus 30 per cent increase), and in 1906—209.3 shares (182 shares plus 15 per cent increase). Now, if instead of buying his first holding of 100 shares of stock in 1900, he had purchased it in 1901, he would have missed the first privilege and consequently by the end of 1906, he would own fewer shares than if he had bought in 1900. To find the amount of stock held on any date, on the supposition that he purchased his 100 shares at a period after the rights of April, 1900, were issued and before the rights of December, 1901, appeared, look across the line marked December, 1901. At that time 120 shares were held (100 shares plus 20 per cent increase), in 1902—156 shares; and in 1906—179.4 shares. The same method can be adopted for any date of issue.

BALTIMORE & OHIO R. R. CO. PAR $100. PRICE, NOVEMBER 21, 1909—$116.50.

Date.	Quantity.	1900.	1901.	1902.	1906.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
Apr., 1900.	16⅔%@80...	116¾	140	182	209.3	$89½	$19,546	$24,383	$4,837	4.387	4.591	8.978	10.031
Dec., 1901.	20%@par.....	......	120	156	179.4	102	18,140	20,900	2,760	2.89	4.784	7.674	7.523
Oct., 1902.	30%@ Par.....	......	......	130	149.5	110	15,950	17,417	1,467	1.802	4.913	6.715	6.105
Apr., 1906.	15%@Par.....	......	......	......	115	108¾	12,325	13,398	1,073	3.404	5.933	9.337	8.625

The column headed "Price" contains the price the purchaser would have had to pay in the open market for the original stock, the day before it sold "ex-rights". Thus for the Baltimore and Ohio Railroad Company, in 1900, a share of common stock would have cost $89.50; in 1901—$102; in 1902—$110, and in 1906—$108.25.

The total cost of the stock is obtained by adding the cost of the original 100 shares of stock (as found in the "Price" column) to the total amount paid for the subscriptions; whereas the "Value" is found by multiplying the amount of the securities held by the market value. In the case of the Baltimore and Ohio Railroad Company, the original purchase of 100 shares at $89.50 per share amounts to $8,950.00. The rights entitle the holder to 109.3 more shares at a total cost of $10,596.00. This additional cost of $10,596.00 plus the original purchase price of $8,950.00 equals $19,546.00, the amount in the "Cost" column. The "Value" of the stock is $24,383.00 (209.3 shares at the market price of November 21, 1909, of $116.50 per share). The "Gain" or "Loss" is the difference between "Cost" and "Value." That amount, as has been pointed out before, will vary greatly with the market value of the securities. Baltimore and Ohio, as stated above, was taken at $116.50 per share, but suppose the panic price of 1907 of $75.50 had been taken. The decrease of $41.00 a share would not only have wiped out the gain, but also would have left a substantial loss. It is, therefore, absolutely necessary to adopt a normal period of prices.

This gain or loss must now be viewed as the amount of an annual dividend or assessment. Here it is necessary to adopt an arbitrary rate of interest extending over the entire period during which the stock was owned, and for this purpose a fair rate of five per cent has been assumed. This rate has been the average for long-term money on good security.

The gain on Baltimore and Ohio from 1900 to November 21, 1909, on the original 100 shares was $4,837.00. Spreading this $4,837.00 over the time the shares were owned, nine years, the annuity, with the interest at five per cent, is equal to 4.387 per cent a year upon the par value of the stock. In the meantime the average dividend rate paid in cash for the nine years was 4.591

per cent. This cash dividend of 4.591 per cent plus the 4.387 per cent gained through subscriptions and market appreciation equals 8.978 per cent on the value of the original stock purchased in 1900. But it must be remembered that the stock cost only $89.50, whereas the total return of 8.978 per cent was based on par, so that the net yield on the purchase price of $89.50 is 10.031 per cent. In 1901 the stock cost $102.00, the total return on par is 7.674 per cent, and the net yield on $102.00 is 7.523 per cent. The same process is followed for each date, and the result can always be found in the column headed "Net Yield on Cost Per cent."

The method of finding the average dividend rate is interesting and shows the effect of increased holdings after the dividend rate has passed a certain point. The following is a table for each period of the Baltimore and Ohio Railroad Company:

	Div. Rate on par	1900	1901	1902	1906
1900	2	2			
1901	4	4	4		
1902	4	3.767	3.8	4	
1903	4	3.347	3.44	3.7	
1904	4	3.347	3.44	3.7	
1905	4.5	4.257	4.22	4.35	
1906	5.5	6.077	5.78	5.65	5.5
1907	6	7.26	6.794	6.495	6.15
1908	6	7.26	6.794	6.495	6.15
		41.315	38.268	34.390	17.80
Average rate		4.591	4.784	4.913	5.933

In the above table the money invested in the privileged subscriptions is supposed to be worth five per cent. This amount comes out of the annual cash dividend and the balance goes to the original 100 shares. For the purposes of illustration, take the column headed 1900.

In 1900, the dividend rate was two per cent, and as the increased stock did not bear dividends until the following year, the net rate was two per cent. This has been indicated opposite the date 1900. The amount invested was $1,333.00 ($16^2/_3$ shares at $80.00 per share), so there must always be allowed $66.65 (five per cent on $1,333.00) interest on the subscription out of the cash dividend. The rate on the entire issue was raised in 1901 to four per cent,

or \$466.65 on the $116^2/_3$ shares owned. Subtracting \$66.65, interest on the new money invested from \$466.65 cash dividend, leaves \$400.00 net yield, or exactly four per cent on the par of the original purchase of 100 shares. In 1902, the rate is still four per cent, but $23^1/_3$ (20 per cent on $116^2/_3$ shares) shares more have been purchased at par, reducing the net yield to 3.767 per cent. This figure is obtained as follows:

16⅔ shares at \$80.00 per share	\$1,333.00
23⅓ shares at \$100.00 per share	2,333.00
Total investment	\$3,666.00
Interest at five per cent	183.30

The total cash dividend on 140 shares at four per cent equals \$560.00. Net result (\$560.00—\$183.30) is 3.767 per cent on par of original 100 shares. In 1902 there were bought forty-two more shares (30 per cent on 140 shares), at a cost of \$4,200.00, bringing the total investment up to \$7,866.00 (\$4,200.00 plus \$3,666.00). Interest at five per cent on that sum in 1903 equals \$393.30. Subtracting from \$728.00, the total dividend at four per cent on 182 shares, leaves 3.347 per cent as the net yield. When in 1905, the rate was raised to four and five-tenths per cent, the net yield was increased by more than merely one-half per cent, as shown by the following calculations:

4.5 per cent on 182 shares (amount held at present)	\$819.00
Interest on subscription at 5 per cent	393.30
Net yield	\$425.70

which is 4.257 per cent on par.

In 1906 the rate was again raised, this time to five and five-tenths per cent. The net yield now rose to over six per cent.

5.5 per cent on 182 shares	\$1,001.00
Interest on subscriptions at 5 per cent	393.30
Net yield	\$607.70

or 6.077 per cent on par.

By 1907, 27.3 more shares at par (fifteen per cent on 182 shares) are procured and \$2,730.00 more cash is invested. This \$2,730.00 plus the \$7,866.00 invested in previous subscriptions brings the

total money invested, in addition to the original purchase of 100 shares, to $10,596. Interest on this sum at five per cent is $529.80; whereas the dividend rate is six per cent on 209.3 shares (182 shares plus 27.3 shares increase), or $1,255.80. The difference between the total cash dividend return of $1,255.80 and $529.80 (the interest allowed for the subscriptions) amounts to $726 or 7.26 per cent on par. Adding all the dividends and dividing by nine, the number of years since the purchase of the original 100 shares, we have 4.591 per cent, or the average cash rate. If the stock had been bought in December, 1901, instead of April, 1900, the net cash dividend yield would have been 4.784 per cent; if bought in October, 1902, it would have been 4.913 per cent; and if bought in April, 1906, it would have been 5.933 per cent. The same method is used for all the other companies.

In the tables adjoining this article are given brief summaries of many of the largest corporations in the United States, which have made a practice of issuing rights to their stockholders. How profitable these properties have proved, a glance at the final column headed "Net Yield on Cost Per cent" of each table will show. The results for the different years vary somewhat, and it would be hard to arrive at any definite conclusion. The results differ with each particular corporation.

The following table shows the net result computed according to the plans shown in the foregoing tables, for each company, if the stock had been bought when the first rights noted in the table were issued:

Company	Date of purchase	Net Yield on cost
American Telephone and Telegraph Company	1901	6.818
Atlantic Coast Line Railroad Company	1902	7.622
Baltimore and Ohio Railroad Company	1900	10.031
Canadian Pacific Railway Company	1901	25.03
Chicago, Burlington and Quincy Railroad Company	1880	8.14
Chicago, Milwaukee and St. Paul Railway Company	1882	7.326
Chicago, Rock Island and Pacific Railway Company	1880	6.924
Cleveland, Cincinnati, Chicago and St. Louis Railway Company	1905	loss 3.446

Company	Date of purchase	Net Yield on cost
Great Northern Railway Company	1893	33.113
Illinois Central Railroad Company	1887	7.809
Missouri Pacific Railway Company	1886	.373
New York Central Railroad Company	1893	7.526
Pennsylvania Railroad Company	1887	6.194
Northern Central Railroad Company	1900	10.691
United Gas Improvement Company	1896	19.665

Many other companies have followed the plan of giving large cash dividends in preference to the idea of distribution through increased stock capitalization. Among such corporations we have notable examples in the Union Pacific Railroad Company, Westinghouse Air Brake Company, Standard Oil Company, and the Delaware, Lackawanna and Western Railroad Company. As to which method is the better, the managers of the various companies have their own opinions, but they amount to practically the same thing. What the policy will be in the future is a matter of conjecture, but it can safely be said that this method of raising additional money, namely, through increasing the capital stock, is finding more and more favor among the railroad directors, although the days when the shares were issued as extra dividends are probably past. A few of the former munificent distributions are shown below.

Railroad	Date	Amount	Price
Atlantic Coast Line Company of Connecticut	1901	100	free
Atlantic Coast Line Company of Connecticut	1901	100 (4% certificates)	free
Atlantic Coast Line R. R. Co.	1904	25 (20% stock and 5% in 4% ctf.)	free
Chicago, Rock Island and Pacific R. R.	1880	100	free
Delaware, Lackawanna and Western R. R. Co.	1863	10	free
Delaware, Lackawanna and Western R. R. Co.	1864	70	free
Delaware, Lackawanna and Western R. R. Co.	1866	10	free
Great Northern Ry. Co.	1898	100	$60.00
Great Northern Ry. Co.	1906	100 (ore certificates)	free

Railroad	Date	Amount	Price
Louisville and Nashville R. R. Co.	1880	100	free
New York Central and Hudson River R. R. Co.	1868	80	free
New York Central and Hudson River R. R. Co.	1869	27	free

The following tables are for some of the leading corporations of the United States, which have made a practice of issuing rights to their stockholders and are all computed in the same manner as illustrated in the case of the Baltimore and Ohio Railroad Company. It is expressly assumed that in all annuity and dividend calculations, money is worth five per cent. For example of this, see pages 87 to 96.

AMERICAN TELEPHONE AND TELEGRAPH CO. PAR $100. PRICE, NOVEMBER, 1909—$144.

Date.	Quantity.	1901.	1902.	1903.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
June, 1901.....	33⅓ Par......	133.33	166.66	200.00	$170½	$27,025	$28,800	$1,775	1.858	9.75	11.608	6.818
May, 1902.....	25 Par.......	....	125.00	150.00	180	23,006	21,600	—1,400	—1.720	8.803	7.083	3.935
June, 1903.....	20 Par.......	....	....	120.00	144	16,400	17,280	880	1.294	8.217	9.511	6.605

ATLANTIC COAST LINE R. R. CO. PAR $100. PRICE, NOVEMBER, 1909—$137½

Date.	Quantity.	1902.	1904.	1906.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
Nov., 1902 ...	40 @ 125....	140	{ 168 Com.. / $700 = 4%.	{ 184.8 Com. / $700 = 4%....	$148	$21,480	$25,984	$4,504	5.532	5.756	11.288	7.622
Dec., 1904....	{ 20 free...... / 5 = 4%ctf..	....	{ 120 Com.. / $500 = 4%..	{ 132 Com.... / $500 = 4%....	155	16,700	18 615	1,915	3.466	6.41	9.876	6.372
Feb., 1906....	10 Par.......	....	....	110	164	17,400	15,125	—2,275	—7.217	5.608	—1.609	—.981

CANADIAN PACIFIC RY. CO. PAR $100. PRICE, NOVEMBER, 1909—$177

Date.	Quantity.	1902.	1904.	1906.	1908.	1909.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
Feb., 1902	30@ Par	130	156	187.2	224.64	269.57	$116	$29,680	$47,788	$18,108	22.24	6.794	29.034	25.03
Oct., 1904	20@ Par	....	120	144	172.8	207.36	131	24,700	36,703	12,003	21.72	6.832	28.552	21.796
Mar., 1906	20@ Par	....	....	120	144	172.8	127½	20,750	30,520	9,770	30.99	6.933	37.923	29.744
Jan., 1908	20@ Par	....	....	......	120	144	158	20,800	25,488	4,688	......	......	......	......
Oct., 1909	20@ 125	....	....	......	....	....	.....	....	....	....	.....	.....	......	......

CHICAGO, BURLINGTON & QUINCY R. R. CO. PAR $100. PRICE, NOVEMBER, 1909—$250.

Date.	Quantity.	1880.	1882.	1884.	1893.	1899.	1901.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
1880	20 free	120	132	145.2	167.54	$1396 181.50	$1306 100.65	$149½	$23,962	$51,169	$27,207	4.336	7.833	12.169	8.14
May, 1882	10 Par	.....	110	121	139.61	1164 151.25	1164 166.38	136	21,111	42,643	21,532	3.938	6.491	10.429	7.669
Apr., 1884	10 Par	.....	.....	110	126.92	1058 137.5	1058 151.25	125½	18,469	38,765	20,296	4.253	6.237	10.490	8.358
Jan., 1893	$\frac{8}{13}$ Par	.....	.....	....	115.38	962 125	962 137.5	99½	14,422	35,241	20,819	8.801	6.125	14.926	14.963
Aug., 1899	Par*	.....	.....	....	....	850 108.5	850 119.35	144	16,972	30,603	13,631	10.837	6.852	17.689	12.284
Jan., 1901	10 Par	.....	.....	....	....	....	110	148½	15,850	27,500	11,650	12.2	6.913	19.113	12.871

*$\frac{1}{13}$–3½ bonds @ 75. $\frac{1}{12}$ in stock @ par.

CHICAGO, MILWAUKEE AND ST. PAUL RY. CO. PAR $100. PRICE, NOV., 1909—COM. $155, PFD. $175

Date.	Quantity.	1882.	1887.	1901.	1906.	1906.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain on present holdings.	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
Sept., 1882.....	20@ 50.......	120	150	165	202.95	253.69 Pfd. 101.48	$127½	$36,817	$57,082	$20,265	3.707	5.633	9.340	7.326
1887......	25@ 85.......	....	125	137.5	169.13	211.41 84.57	95	28,723	47,568	18,845	4.895	4.904	9.799	10.310
Mar., 1901......	10@ Par......	....	....	110	135.3	169.13 67.65	154¾	28,153	38,054	9,901	10.368	7.685	18.053	11.666
Aug., 1906.....	23@ Par......	....	....	......	123	153.75 62.5	193	30,925	34,769	3,844	12.194	8.55	20.744	10.748
Dec., 1906.....	25@ Par..... 50 pfd. Par...	....	....	....	....	125 50	194	26,900	28,125	1,225	3.886	8	11.886	6.127

CHICAGO, ROCK ISLAND & PACIFIC RY. CO. PAR $100. PRICE, NOV., 1909—COM. $40. PFD. $80. BONDS $77.

Date.	Quantity.	1880.	1887.	1898.	1901.	1902.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
1880..	100 free......	200	220	242	290.4	290.4 com. $29040 bonds 203.28 pfd.	$204	$27,240	$50,240	$23,000	3.691	10.434	14.125	6.924
Sept., 1887..	10 Par.......	....	110	121	145.2	145.2 com. $14520 bonds 101.64 pfd.	129	15,320	25,119	9,799	2.545	4.685	7.23	5.605
June 1898..	10 free.......	....	....	110	132	132 com. $13200 bonds 92.4 pfd.	108⅜	13,037	22,836	9,899	6.969	5.578	12.547	11.577
Aug., 1901..	20 Par.......	....	....	....	120	120 com. $12000 bonds 84 pfd.	175½	19,525	20,760	1,235	1.46	5.21	6.67	3.806
1902..	Conversion....	....	....	....	.....	100 com. $10000 bonds 70 pfd.	......	....	....	....	......	......	......	......

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS RY. CO. PAR $100. PRICE, NOVEMBER, 1909—$78.

Date.	Quantity.	1905.	1906.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market loss (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent. "Loss."	Net loss on cost, per cent.
June. 1905......	10@ Par...	110	132	$100½	$13,030	$10,296	$2734	6.343	2.88	3.463	3.446
Dec., 1906.......	20@ 90....	...	120	92	11,000	9,360	1640	5.202	2.733	2.469	2.684

GREAT NORTHERN RY. CO. PAR $100. PRICE, NOVEMBER, 1909—$142

Date.	Quantity.	1893.	1898.	1899.	1900.	1901.	1905.	1906.	1907	In addition to last.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
June, 1893....	25 Par...	125	250	300	330	412.5	495	495	693	Ore 495	$135	$66,150	$139,491	$73,341	31.004	13.698	44.702	33.113
July, 1898......	100@ 60.	....	200	240	264	330	396	396	554.4	396	180	58,120	111,593	53,473	37.639	14.803	52.442	29.134
May, 1899......	20 Par...	....	....	120	132	165	198	198	277.2	198	189½	36,010	55,796	19,786	15.73	9.415	25.145	13.269
Jan., 1900......	10 Par...	....	....	....	110	137.5	165	165	231	165	166¼	29,200	46,497	17,297	15.662	8.963	24.625	14.79
Apr., 1901......	25@80..	....	....	....	....	125	150	150	210	150	203½	30,850	42,270	11,420	11.96	8.825	20.785	10.214
Sept. 1905......	20@ Par.	....	....	....	....	......	120	120	168	120	314	38,200	33,816	—4,384	—10.17	8.77	—1.40	—.446
Dec., 1906	100 Ore..	....	....	....	....	......	....	100	140	100	318	35,800	28,180	—7,620	—24.175	8.633	—15.542	—4.887
Jan., 1907......	40@ Par.	....	....	....	....	......	....	....	140	....	......	......	......	......	......	......	......	......

ILLINOIS CENTRAL R. R. CO. PAR $100. PRICE, NOVEMBER, 1909—$150

Date.	Quantity.	1887.	1890.	1892.	1899.	1901.	1901.	1902.	1908.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
June, 1887.......	33⅓ Par.....	133⅓	150	166⅔	200	220	264	316.8	363.32	$138	$40,132	$54,498	$14,366	3.731	7.045	10.776	7.809
Sept., 1890......	12½ Par.....	.....	112½	125	150	165	198	237.6	273.24	100	28,224	40,986	12,762	4.179	7.000	11.179	10.256
Sept., 1892......	11⅑ Par.....	.....	.....	111⅑	133⅓	146⅔	176	211.2	242.88	96	23,838	36,432	12,594	4.874	6.464	11.338	11.810
Nov., 1895....... July, 1899.......	5 Par.... 15 Par....	.....	.....	.....	120	132	158.4	190.08	218.59	100	21,859	32 789	10,930	5.577	7.239	12.816	12.816
Jan., 1901.......	10 Par.....	.....	.....	.....	.....	110	132	158.4	182.16	130	21,216	27,324	6 108	6.396	7.27	13.666	10.512
Nov., 1901.......	20 Par.....	.....	.....	.....	.....	.....	120	144	165.6	147	21,260	24,840	3,580	3.757	7.27	11.027	7.501
Aug., 1902.......	20 Par.....	.....	.....	.....	.....	.....	.....	120	138	168	20,600	20,700	100	.105	6.857	6.962	4.144
May, 1908.......	15 Par.....	.....	.....	.....	.....	.....	.....	....	115	135	....	....	....	.....	.....	....	......

MISSOURI PACIFIC RY. CO. PAR $100. PRICE, NOVEMBER, 1909—COM. $71. BONDS $102.

Date.	Quantity.	1886.	1886.	1886.	1887.	1890.	1901.	1908.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market loss (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
Feb., 1886....	10 Par.....	110	119.9	131.89	145.08	$2176.2bd 147.26	$2176.2 169.35	$2176.2 173.58	$111	$19,884	$14,544	$5,340	1.289	1.703	.414	.373
June, 1886....	9 Par.....	....	109	119.9	131.89	1978.35 133.87	1978.35 153.95	1978.35 157.80	112	18,276	13,122	5,154	1.244	1.991	.747	.667
Oct., 1886....	10 Par.....	....	......	110	121	$1815 122.82	$1815 141.24	$1815 144.77	115	17,166	12,130	5,036	1.216	2.247	1.031	.896
May, 1887....	10 Par.....	....	......	....	110	$1650 111.65	$1650 128.4	$1650 131.61	109	15,143	11,027	4,116	1.069	2.3	1.231	1.129
May, 1890....	15*.......	....	......	....	....	$1500 101.5	$1500 116.73	$1500 119.65	79	10,848	10,025	823	.269	2.103	1.834	2.322
June, 1901....	15 Par.....	....	......	....	....	....	115	117.88	119	13,400	8,370	5,030	5.268	3.97	—1.298 (Loss)	1.091 (loss)
Jan., 1908....	2½ free.....	....	......	....	....	....	....	....	....	....	....	....	....	....	....	.....

*15 per cent in collateral trust bonds due 1920. Price $950 for $1000 bonds plus one share of common stock.

NEW YORK CENTRAL & HUDSON RIVER R. R. CO. PAR $100. PRICE, NOVEMBER, 1909—$135.

Date.	Quantity.	1893.	1899.	1902.	1905.	1906.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
June, 1893....	10 Par..........	110	126.5	145.48	164.39	197.27	$100	$20,202	$26,480	$6,278	2.653	4.827	7.480	7.480
Dec., 2, 1899 } Jan., 1901 }	15 Par..........	....	115	132.25	149.44	179.33	138	22,151	24,030	1,879	1.404	5.123	6.617	4.795
Mar., 1902....	15@ 125........	....	......	115	129.95	155.94	160	21,969	21,060	— 909	—1.117	5.278	4.161	2.601
Dec., 1905....	13 Par..........	....	......	....	113	135.6	157	19,260	18,306	— 954	—2.214	5.424	3.210	2.045
Nov., 1906....	20 Par..........	....	......	....	....	120	131	15,100	16,200	1,100	3.49	5.50	8.99	6.863

NORTHERN CENTRAL RY. CO. PAR $50. PRICE, NOVEMBER, 1909—$108.

Date.	Quantity.	1900.	1904.	1907.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
Apr., 1900......	50@ 62.50...	150	200	225	$87	$14,325	$24,300	$9,075	9.046	9.556	18.602	10.691
June, 1904......	33⅓ Par.....	....	133⅓	150	110	12,666	16,200	3,534	6.395	9.067	15.462	7.028
Jan., 1907......	12½ Free.....	....	.....	....	....	....	....	....	.....	.....	......	.....

PENNSYLVANIA R. R. CO. PAR $50. PRICE, NOVEMBER, 1909—$66.

Date.	Quantity.	1887.	1890.	1893.	1899.	1901.	1902.	1903.	1904.	1905.	1909.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
June, 1887.	8 Par..	108	116.64	118.97	130.87	174.49	{$2181 174.49	{$2181 232.65	263.81	307.81	384.76	$58	$22,661	$25,394	$2,733	1.41	5.775	7.185	6.194
May, 1890..	8 Par..	....	108.00	110.16	121.18	161.57	{$2020 161.57	{$2020 215.43	244.29	285.01	356.26	56	20,848	23,513	2,665	1.74	5.797	7.537	6.729
1893.	2 free...	....	......	102.00	112.2	149.6	{$1870 149.6	{$1870 199.47	226.18	263.89	329.86	51	18,842	21,771	2,929	2.474	5.754	8.228	8.067
Dec., 1899.	10 Par..	....	......	......	110.00	146.67	{$1834 146.67	{$1834 195.56	221.76	258.72	323.4	65	19,973	21,344	1,371	2.182	5.998	8.180	6.292
Mar.. 1901.	33⅓@60..	....	......	......	......	133.33	{$1667 133.33	{$1667 177.77	201.58	235.18	293.98	80	19,793	19,403	—390	—.816	6.008	5.192	3.245
Mar., 1902.	25@70*..	....	......	......	......	......	{$1250 100	{$1250 133.33	151.19	176.38	220.48	75½	14,889	14,546	—343	—.844	6.007	5.163	3.419
Mar, 1903.	33⅓@60	....	......	......	......	......	......	133.33	......	155.56	194.45	67½	12,362	12,834	472	1.388	6.389	7.777	5.761
May, 1904..	Conv....	....	......	......	......	......	......	......	......	......	......	...	......	......	......	......	......	......	......
1905..	25@75*.	....	......	......	......	......	......	......	......	116.67	145.84	71	9,809	9,625	—184	—.854	6.25	5.396	3.800
Oct., 1909.	25 Par..	....	......	......	......	......	......	......	......	......	125	70	8,250	8,250	......	......	......	......	......

*Convertible 3½'s.

UNITED GAS IMPROVEMENT CO. PAR $50. PRICE, NOVEMBER, 1909—$90.

Date.	Quantity.	1896.	1898.	1900.	1902.	1903.	1906.	1909.	Price (original purchase).	Cost (of present holdings).	Value (of present holdings).	Market gain (on present holdings).	Annuity on par, per cent.	Dividend on par, per cent.	Total on par, per cent.	Net yield on cost, per cent.
Jan., 1896	15 free	115	151.8	227.7	284.63	370.02	462.52	508.77	$85	$28,189	$45,789	$17,600	19.872	13.559	33.431	19.665
Mar. 1898	32 Par	....	132	198	247.5	321.75	402.19	442.41	114	28,521	39,817	11,296	15.902	12.574	28.476	12.489
1900	50 Par	....	......	150	187.5	243.75	304.69	335.16	156	27,358	30,164	2,806	5.09	11.427	16.517	5.294
Jan., 1902	25 Par	....	......	......	125	162.5	203.13	223.44	121	18,822	20,110	1,288	3.164	9.795	12.959	5.355
May, 1903	30 Par	....	......	......	......	130	162.5	178.75	108	14,738	16,088	1,350	3.968	8.975	12.943	5.993
May, 1906	25 Par	....	......	......	......	......	125	137.5	91	10,975	12,375	1,400	8.884	8.50	17.384	9.552
May, 1909	10 Par	....	......	......	......	......	......	110	90	9,500	9,900	400	8	......	......	......

CONVERTIBLE BONDS AND STOCKS

By Montgomery Rollins,
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In concise language, a convertible security is a bond, stock or note which at the option of the holder, is exchangeable under certain conditions and at some time—present or future—for some other security issued—usually, but not always—by the same corporation. It has frequently the usual characteristics of a debenture bond; that is, an ordinary promissory note of the issuing company, but nearly as many issues are secured by first mortgages upon all or parts of the properties. Where the form is that of the ordinary debenture, it does not carry the features of a well-secured bond in case of a default, although it does rank ahead of the preferred stocks in its claim upon the earnings and assets. But where it is a direct first-mortgage obligation, covering all the company's property, it becomes the safest security such a corporation can give. A convertible bond has been characterized as a "call" upon the prosperity of the company, and thus upon that of the country.

An interesting feature pertaining to these securities is that the investor seems ready to purchase them at prices which indicate a willingness to forego some degree of immediate value for the sake of expected future increment.

It is difficult to frame any fixed definition that will embrace all the convertible issues, for the variety of securities that have been given the convertible privilege and likewise, the variety into which they are convertible, is very diversified. The privileges of conversion differ still more widely, there being but few issues which even approximately coincide in this latter regard. Bonds which are convertible into stock predominate over any other class; following which, there is but little to choose between notes convertible into bonds, and one class of stock convertible into another. The face value of what may be termed "live issues" of American corporations, carrying this exchange privilege, is the rather startling total of over one billion five hundred millions of dollars.

In the brevity of language which the banker is prone to adopt, these securities are called "convertibles," which term we shall find convenient to use occasionally in referring to them as a class.

To say that there are fashions in the investment world is not, perhaps, a fair way to express it. Expedients may be the better word; but that investment selections go in waves that may well be likened to the changes in fashions is a fact well known to all bankers. It is not likely to be disputed that swings of the pendulum toward this or that temporarily popular security are almost inevitably followed by too far a deviation from the perpendicular line of conservatism, ending with an overdoing of the frenzy, and resulting, sometimes, in almost incalculable losses, and not infrequently in general financial collapse. This has all been tested out in the world of finance, by the issuing of farm mortgages, or debentures based upon them as collateral, resulting in widespread disaster in the early 90's. In the railroad world, in particular, unsatisfactory conditions arose from the unwise issuing of income, debenture and collateral trust securities.

It must not be supposed that the extraordinary privileges so often accompanying convertible issues have been conferred out of pure altruism, because in many instances they have been justified upon economic grounds. Culminating with the experience referred to in the last paragraph and many others of a similar nature, corporations were sorely beset some years ago for a means of further financing their much-needed development work. The condition of mind of the investment public was such that an added zest of some nature was almost imperative, and the general issuing of convertible securities was the saving expedient which was generally and successfully adopted. Speculation was also running riot at the time, and the railroads appreciated the value of the speculative feature which the convertible plan offered. Therefore there was a rapidly increasing flood of these securities, the popularity of which has not yet begun to wane.

The fact that railroads of such high standing as the Baltimore and Ohio, Union Pacific and Pennsylvania, by blazing the way with issues of fifteen million, one hundred million and fifty million, respectively, set their seal of approval upon the general adoption of the convertible feature as a way of inducing an already security satiated public to make further purchases, was one means of opening

the flood gates to convertible issues. The average investor naturally inferred that such a plan of financiering must be sound, and so the ways were made easier for corporations of lesser standing to follow the tendency of the times. It was an opportune moment for the public to absorb these securities, because convertible bonds are likely to demonstrate their speculative attractiveness during a period of rapid expansion. Although the foregoing are the principal reasons for the readoption—the idea is not a new one—of this scheme of finance, yet there are others which should be mentioned:

Some companies had in mind the reduction of their fixed interest charges, which an ultimate conversion into stock would bring about. At other times, the issuing of convertibles in lieu of stock has not been based upon the best interests from the company's financial standpoint, but rather to retain control of the stock, which control might have been jeopardized by an increased issue of the latter. That is to say, unless those in control felt disposed, and were financially able, to go into the market and purchase enough of the new issue to retain control, they could avoid all this by issuing a convertible bond, the convertibility of which could not be effected until some time well into the future. The issuing of a bond convertible at some future time into stock is nothing more nor less than the present sale of future stock, but the voting privilege would not accrue until after conversion. The fact that others were anxiously awaiting the opportunity to obtain control in the open market only increased the desire for this means of self-preservation.

There have been many instances where railroads could not place their new issues of stock at anything like par, and also could not have sold plain bonds—debentures—bearing a low rate of interest, except at a prohibitive discount. But by issuing a bond bearing a rate of interest commensurate with the times, and carrying with it a chance to share in any future advance in the stock beyond the conversion price, successful financiering has been accomplished, which, otherwise, might have been impossible.

To many, unfamiliar with the financial history of thirty or forty years ago, it may seem that the sudden outpouring of convertibles during the past ten years has been the first pioneering under that plan. But not so; the beginning dates long before that, for we find an issue of this character back in the days of Commodore Vanderbilt who at the time of his interest in the Erie, caused that

railroad to issue, in 1868, ten millions in convertible bonds, to secure funds for double tracking. Perhaps the next important issue was in 1875, when railroad bonds were not so highly esteemed by investors as in more recent days, at which time the Chicago, Milwaukee and St. Paul Railroad Company issued thirty-five millions of dollars in seven per cent. bonds; and in 1878 put out another issue, at the same rate, on the Iowa and Dakota extension. Then there were issues by such corporations as the Burlington and Missouri River, the Eastern in Massachusetts, and many others. There was, therefore, a period quite remote from the recent large offering of convertibles when to a considerable extent, recourse was had to the same idea.

Referring again to the first St. Paul issue, it will be noted that it was brought out comparatively soon after the disastrous year of '73, so well known to financial history. The section tributary to the road was in the early stages of development and therefore the convertible feature did not offer such reasonable surety of future enhancement, as appears to be the accompaniment nowadays of so many issues of this nature. It was a far different proposition to market a six per cent. convertible bond in 1908 on such a property as the New York, New Haven and Hartford Railroad, with the stock declaring eight per cent. in yearly dividends, to the placing of a similar obligation, in 1875, backed by a railroad property in the undeveloped West. It called for more faith on the part of the buyer in the latter instance, and there was a better excuse on the part of the railroad company for adopting the principle. But, nevertheless, it is reported that a St. Paul director argued that there was an injustice to the stockholders, since the bondholders had not only a reasonable assurance of their interest, in good times or bad, but, in addition thereto, the privilege of sharing in the stockholders' profits if the stock increased sufficiently in value. That reasoning is applicable to all such issues.

This same idea that the bondholder has everything to gain and probably little to lose, by purchasing a convertible bond in preference to stock of the same corporation, sums up much of the good and the bad of this whole scheme. It is, the writer believes, frequently an injustice to the stockholder; not always a benefit to the corporation, besides generally proving too great a prize to have given the bondholder. The plan is not always, however, injurious to the

stockholder, for there are times when if, instead of issuing convertibles, the capital stock should be largely increased, it might depress the value of the existing stock to a point entailing a hardship upon the holders, whereas the placing of an issue of convertible bonds, especially where the convertible privilege does not begin to operate until some distant date, may not only enable the company to finance itself at a temporary lower rate of interest than the dividend rate upon its stock, but the fixed charge accompanying the convertible issue would, when the conversion privilege begins to operate, gradually decrease and possibly eventually disappear entirely. The slow conversion into stock of such an issue would not be apt to act seriously to the disadvantage of the other stock outstanding, and thus the holders would not suffer.

In all this discussion, where it may be considered a disadvantage to the existing stockholders, we are going upon the assumption that the stock is at the time selling at more or less at a premium, and paying dividends in excess of the average normal fixed charge upon bonds.

Enormous profits have been made on convertible securities, and, withal, as a class, up to the present time, the purchasers have been wonderfully well remunerated upon their investments; although, in some cases, profits have been in reach, which were unwittingly allowed to escape. The possibility that this may occur demands vigilance at times on the part of investors in convertibles, all of which the following illustration will make clear: At the time the Chicago, Milwaukee and St. Paul Railroad Company's convertible 7's, previously referred to, approached maturity, they were worth about 170, if converted. It is remarkable how many failed to realize this, and, consequently, turned in their bonds for redemption at par and interest, thus losing a certain profit of seventy per cent.

The convertible method sometimes has a peculiar effect upon the market value of a stock. We will imagine that the conversion period has been reached, and that the stock has advanced to a point where there is a decided profit to be obtained by converting the bonds and selling the stock received in return. This may bring about such a flood of conversion, and consequent offering of stock upon the market, that its price will be materially depressed.

Another deterring influence, which an issue of convertible bonds may exercise upon an otherwise probable advance in price of a

company's already existing stock, is better explained by an illustration. The Pennsylvania Railroad Company has outstanding a large amount of three and one-half per cent. bonds, convertible into stock paying dividends much in excess of that rate. Thus, as the bonds are converted, the stock issue may be largely increased, drawing more heavily upon the profits, the dividend rate being nearly double that of the fixed charge. It is believed that this factor has been a hindrance to the rise in value of a stock, for which there otherwise seems no very good reason for its remaining below the comparative price level of other securities.

No one questions the public appreciation of these investments at the moment. Their popularity is, of course, due to the ingenious combination of safety and speculation with which they have been surrounded. The purchaser of a security of this class, when backed by a strong and prosperous corporation, has good reason to feel sure of the repayment of his interest and principal, for, surely, he understands that they both rank ahead of any claims of the stockholders, either for assets or dividends. But, besides this, if, during the period when conversion may be affected, there chances to be an enhancement in the market price of the stock into which the bonds are convertible, and to a point well above the exchangeable price, the bondholder will reap a proportionate good fortune. In actual practice, it will not be necessary to effect conversion in order to realize this profit, for the bonds follow fairly closely the fluctuations of the stock, so may be sold and the profit taken. This accounts for the seemingly unreasonably high quotations which are occasionally to be met with for some convertibles. It hardly appears consistent for a six per cent. bond, the obligation of a comparatively new mining company, to be priced in the market at 180, paying less than one per cent. yearly income—an unheard-of low rate of interest for a long-time investment—and yet such instances are to be encountered. The selling price of the stock into which the bonds could be converted was such as to warrant a speculative rise in the price of the latter, far above their investment value.

It is not unusual for a security into which some other may be converted to be quoted so much below the conversion price that no immediate value is attached to the privilege. Under such circumstances, the value of the convertible must be judged from the investment standpoint only. Such a condition was well illustrated

at the time of the money market disturbance of 1907-08, when many issues of convertible bonds maintained a consistent level commensurate with market conditions and prices of other junior issues of the same corporations or other first-mortgage issues of similar worth not having the conversion right. The convertibles were not affected by a fall in the market values of the stocks for which they were exchangeable, even although the latter declined far below the converting points.

No better illustration of the argument of the last two paragraphs can be cited than the action of the Union Pacific Railroad Company four per cent. convertible bonds, during the panic—so-called—referred to, when the common stock fell to the low point of 100, which is seventy-five per cent. below the conversion price of the bonds. A sympathetic action on the part of the latter would have caused their decline to 57.14, a price not at all consistent with their real value. As a matter of history, they at no time fell below 78¼ ("flat").

It will be apparent that the price action of convertibles will be sympathetic with the securities into which conversion may be effected only as the quotations of the latter exceed the exchangeable prices, and that they do not fall to a point beneath the same merely on account of such decline. There must be other factors existing, such as a disturbed money market, an impending trouble likely to affect the particular company, or the like.

There are so many things, in connection with convertibles, which call for intelligent thought—and forethought—so that the holders of these investments may receive the maximum benefits obtainable therefrom, that a few of the more salient features will be enumerated.

One important consideration is that of a bond, to illustrate, exchangeable at par for a given stock at 140. When the two securities are quoted at these respective prices, accrued interest and dividends disregarded, they are on a conversion equality, and nothing is to be gained by converting. If the stock advances, and the bonds remain stationary, conversion becomes profitable. But—and this is the point—suppose the stock remains stationary, and the bonds fall below par, conversion is, likewise, profitable. If the bonds are selling at ninety-five, the conversion equality of the stock falls to one hundred and thirty-three, so, if the latter is quoted

above that figure, it behooves one to convert, or to buy bonds and exchange for stock, if the prices are far enough apart to pay commissions.

So far, we have made no particular distinction between issues in which the conversion privilege is already operative and those where it becomes effective at some future date. But there is a marked difference in the price action upon the two classes to be converted. Under the latter conditions, the sympathetic price control of the stock upon the bonds is less marked the more distant the conversion period happens to begin. If not until ten or a dozen years, the price of the stock, however much above its exchangeable value, will but little influence that of the bonds; the latter following more their strictly investment value. But, as the time shortens, the effect increases, until the conversion period begins, when the price of the two securities, if that of the stock is at or above the converting point, must come together. As the conditions of convertibility approach fulfillment, public interest naturally increases, consequently giving a greater impetus to market activity.

It not infrequently happens, however, when the conversion period is comparatively near, say three years or less, that the bonds may be purchased at prices not in keeping with a reasonably sure estimate of their future conversion value. Let us take the General Electric five per cent. convertibles, which can not be exchanged for stock before June 1, 1911; then on a basis of par for par. The stock is paying eight per cent. yearly dividends, whereas the bonds pay five. Valuing each on the basis of irredeemable securities—which is the only true way under the circumstances—we find that at the present (say, as of March 1, 1910) market value of the same—142 for the bonds and 156 for the stock, and taking the stock as of a "flat" price—the latter pays about 5.13 per cent., and the former 3.52 per cent. yearly income, a difference of 1.61 per cent. From the time of computation to the date when conversion may begin (one year and three months) this would equal, to use even figures, two per cent. Consequently, the holder of the stock would be that much better off in interest return than the bondholder. The market difference in the prices, however, is fourteen per cent. Deducting the two per cent., there appears to be an inconsistency of twelve per cent. in the market quotations in favor of the bonds.

Under this state of affairs, it would appear logical for the holder

of the stock to sell the same and purchase bonds, providing, of course, it was, and is, his intention to retain his investment until the date of conversion, when, everything else being equal, the price of the two securities must become practically identical. The weakness in the deduction is that the bonds would not participate in any extra cash or stock dividends which might be declared upon the shares in the meantime. Accepting this as an improbability, and further basing one's faith that the eight per cent. dividend rate will not be reduced, there must be an actual profit of twelve per cent., based upon the foregoing quotations, by changing from stock to bonds, which may be obtained by patiently waiting fifteen months, in addition to an interest return of 5.13 per cent. upon the money invested. It is also clear that if it is safe to predict a quotation for the stock on June 1, 1911, equal to or higher than 156, the same profit is to be had by buying the bonds now rather than the stock.

We have just mentioned that the only true way to value a bond such as that under discussion, is as an irredeemable security. It is taken for granted that the reader will differentiate between the use of bond value tables for determining the yield from redeemable securities, and that of stock tables for those running in perpetuity. Some controversy has arisen as to how to treat convertible bonds from the "return upon the investment" standpoint. The circumstances surrounding the various issues inject different conditions into the argument. Take, for example, the convertible bonds of the International Steam Pump Company, which, some time before being called for redemption, were selling at about 102, with the stock into which they were convertible quoted at only 48. As the conversion parity was 100, it is obvious that there was no profit to the holder in converting at that time, and, judging from the past and from the fact that the bonds matured in less than four years, none of them was likely to be converted.

There appears to be but one way to value a security under these conditions, from the income standpoint, and that is by the net return, pure and simple, as obtained from ordinary bond value tables; that is to say, a six per cent. bond having approximately four years to run, selling at about 102, would return annually, say five and three-eighths per cent.

On the other hand, turn to the Union Pacific Railroad Company's convertible 4's, quoted at 110, and its first mortgage 4's,

quoted at 101. There must be some reason for the difference in these prices, especially when the better secured bond is offered at a materially lower price than the inferior one. If, therefore, the first mortgage bonds are selling upon an investment basis, the convertibles must necessarily be selling well above their actual investment value. In this latter case, it seems proper to assume that conversion into stock will sometime be effected; therefore, the bonds should be regarded as a non-maturing stock investment. It must be this way, because the whole argument is based upon conversion eventually taking place, and the bond thus giving way to an irredeemable stock. It makes a great difference whether the net yield of a four per cent. convertible bond selling at 110 be determined upon the basis of its having a definite maturity, and thus using the ordinary tables of bond values—which take into consideration a sinking fund to liquidate the premium paid—or whether the same is to be permanently exchanged for a stock, netting, at the conversion price, considerably better than five per cent. per annum.

From all this, it is not difficult to arrive at the natural conclusion that, where the stock of a property is selling above the conversion price, and paying dividends at a rate likely to be maintained, the convertible bonds exchangeable therefor should be valued by the use of stock tables; but where the stock for which a bond may be exchanged is selling at a point below the conversion price, and there seems no probability of its advancing beyond that price during the conversion period of the bond, the latter must be valued by bond value tables only; that is, treated as redeemable.

Corporations have been somewhat embarrassed in the issuing of convertible bonds, owing to the fact that it gave the holders a certain call upon the stock not enjoyed by the shareholders of the company. The general common law rule is that, in case of any new stock issues, the old stockholders shall be entitled to have the first opportunity to subscribe to the same, in proportion to their holdings, and at a price as favorable as that given to anybody else. In order to get around this point, certain legislation has been enacted in New York and a few other states, for the benefit of some companies incorporated therein, which desired to issue convertible bonds; but when an attempt was made by a company incorporated under New Jersey laws, to exercise the convertible plan, in the absence of existing legal permission so to do, trouble was encountered, for in the case of

"Wall *vs.* Utah Copper Company," the court decided that the stockholder could prevent such an issue of stock and bonds, unless his proportional share of the stock had first been offered to him.

Although the court did not decide that the stock or bonds were invalidated after they had actually been issued without protest from the stockholders, it did give a decision of which the following is part, and applicable to this discussion:

"A stockholder prior to the increase (in stock) has a right to a voice in the management, and to a share of the assets of the corporation, on final dissolution, in the proportion that his holdings bear to the entire outstanding capital. These rights are materially affected by an increase of the capital stock, and such increase must, therefore, be made in a manner to enable him to become a purchaser of such a proportion of the increased capital stock as will preserve his rights to the same proportion in the assets on final liquidation as he originally had, and also the same voice in the management of the corporation. Moreover, the immediate effect of an increase in the capital stock of a corporation, the value of which is above par, would be to depreciate the value of the original stock, unless the new capital is issued and sold at a valuation equal to that of the original issue. It is, therefore, manifest that if the holders of the original stock are not to purchase the entire new issue, it is to their interests that the increase of stock be issued, not at par, but at what will be its actual value, as near as the same may be ascertained."

Where a bond is convertible into stock, and the latter is paying dividends—no conversion would be likely to take place otherwise—it is the almost universal rule that the company will, at the time of conversion, allow the holder the accrued interest upon the bond, and charge against him the accrued dividend on the stock, at the current dividend rate, the difference to be paid in cash by one party to the other. Sometimes the dividend and coupon dates coincide, so that no cash adjustment is necessary, providing conversion may be accomplished only upon such dates. If the dates agree, and likewise the interest and dividend rates, no adjustment is required, whenever the conversion. Companies differ, however, as to fixing the time from which to compute the dividend; some from the date when the last dividend was paid; others from when it was declared, and so on. These points should always be made sure of. The "current rate" may also need defining.

This agreement as to a cash adjustment of the interest and dividend may appear in the trust deed—if any—in the face of the bond, in printed circulars of the companies, or may be verbal instructions to the ones authorized to effect the conversion, such as trust companies.

Where the conversion price of the stock does not permit of an even division into the face value of the bond, there will be a fractional share to be adjusted. If a one-thousand-dollar bond is exchangeable for stock at two hundred, we should have no such fraction, for five even shares would be received by the one converting; but if exchangeable for stock at one hundred and forty, seven and one-eighth shares would be the approximate number.

The settlement for this fractional share may be worked out in various ways, either by the company paying for it in cash, or by issuing convertible bond "scrip," so-called, which may be exchanged for stock, when presented in aggregate amounts equal to the conversion price of full shares. Some companies provide, however, that if it is not presented in just even amounts, other "scrip" will again be given for the excess, which is by far more equitable. The idea of giving either cash or "scrip" is simply to adjust the one fractional share, whatever the amount of bonds may be that is turned in at a single conversion. That is to say, neither of these methods of adjustment would permit of a cash or "scrip" payment equal to or in excess of the conversion price of one share of stock; the intention is always to give the maximum number of shares for which the par value of the bonds calls, adjusting the difference as above. No better chance illustration could be cited than that of the American Telephone and Telegraph Company. In the conversion of a one-thousand-dollar bond, seven shares of stock and sixty-three dollars and forty-eight cents cash are given; but if forty-four thousand dollars in bonds are converted, three hundred and twenty-nine shares in stock and only forty cents in cash is the method of settlement.

When the adjustment is made in "scrip," the price of the "scrip" should naturally fluctuate in the market with the stock, based upon its proportional amount to the conversion price of a full share of such stock.

Some companies will only give stock in exchange for bonds when presented in amounts evenly divisible by the conversion price of a share. That is to say, in such an event fourteen thousand dol-

lars in bonds would have to be presented for a conversion into stock at one hundred and forty, unless bonds were in denominations of less than one thousand dollars.

Also of great importance is the time when conversion may be accomplished. Often this privilege begins when the bonds are issued, and terminates only with their maturity or redemption. Again, it is set forward to some future date, and then exists for a limited period and so on. Ignorance upon this point has caused the loss of many substantial profits, which, otherwise, would have accrued to the holders.

It is not uncommon for the convertible right to be conferred upon an issue as an afterthought, neither the bonds nor the original trust deed showing any evidence of this privilege, the matter being covered in a supplemental agreement.

Potential added security is sometimes given a convertible debenture both for the better protection of the holder and easier marketability of the issue. It is a proviso inserted that in the event of any mortgage indebtedness afterward being placed upon the property of the company, such mortgage shall likewise include the debenture issue in question.

There are but few convertible bond issues which do not carry a right of redemption prior to maturity. This is a matter that must not be lightly regarded, for a valuable conversion privilege may be lost to the holder on account thereof; or a bond which could be sold at a high premium, because of its value for conversion, may be called for payment at par or a small premium, and, unless the notice of call is discovered in time, the right to convert will lapse. As a rule, conversion may be effected up to, or about, the date named, for payment when a bond is called for redemption, or to within thirty days of such date. The right to redeem is very largely limited to interest dates, and after notice published in papers of general circulation in one or more named cities.

To be forewarned may be preventive of loss, for many possible profits have been allowed to pass beyond recall through ignorance of the conditions surrounding some particular issue. A registered bond generally safeguards the holder in the foregoing respects, as almost all trust deeds provide that a notice of intention to redeem must be mailed to every registered holder affected.

In summing up, convertible securities combine elements of

safety together with a very possible speculative profit, which, if the other usual safeguards in selecting investments are exercised, recommend them to one's serious consideration. The argument is largely in favor of the convertible attachment, everything else being equal, so far as it is likely to profit the investor. He may retain his position as creditor, to which he is entitled as a bondholder, so long as the success of the enterprise, from the stockholder's point of view, is in doubt, and can then change from the position of a creditor to that of a shareholder, and thus part owner, when he becomes satisfied that all is going well, and profits likely to increase in accordance therewith. The essence of all this has been well put by a financial writer after this manner: "Convertibility is a kind of premium which is put on the future, but which relieves the lender of capital from assuming any of what might be called the marginal risks of growth."

BAROMETRIC INDICES OF THE CONDITION OF TRADE

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Statistics are divided into two classes, viz.: Comparative Statistics and Fundamental Statistics.

(1) *Comparative Statistics as Indices*

So far as the merchant is concerned, comparative statistics relate to the weight, quality, age and method of manufacture of the merchandise in which he deals, together with such "trade figures" as are published in the trade journals.

From the investor's point of view, comparative statistics include all particulars concerning the bonded debt, the earnings, and the general physical and financial condition of properties. Such statistics are very necessary to bankers and investors for comparing similar securities of different companies, or different securities of the same company. If such data is always up to date, such comparative statistics are very valuable for enabling one to select safe securities, either for permanent investment or for buying and selling again. As the largest and most successful stock exchange brokers, bond houses and mercantile firms, are already well supplied with comparative statistics and are obtaining excellent results, we need not here discuss details concerning this class. It should be clearly understood, however, that such statistics are worthless for determining the general course of the entire market or for serving as barometric indices of the condition of trade.

Comparative statistics determine only actual values, enabling one to select safe securities or good merchandise, or to select the better of two or more companies' securities, or grades of merchandise. With the general market conditions remaining fixed, comparative statistics might be used for forecasting a rise or a decline; but the general market is so seldom stable that comparative statistics cannot be depended upon to serve this purpose. They have been brought into disrepute at times because of the fact that

they are inadequate for analyzing general conditions. The market value of securities or merchandise may continually decline, and the actual value of the same increase, or vice versâ.

Whoever bases either purchases or sales solely upon earnings, physical conditions or other comparative statistics, *with the idea of selling at a profit,* will surely lose money. Such statistics may be used for selecting a safe investment or good merchandise, such as one may desire to hold permanently; but they are absolutely worthless for any other purpose. It is because this fact is not being recognized by many firms, content with accumulating only comparative statistics, that even with their elaborate statistical departments, they are often on the losing side. In short, these statistics are for studying only surface conditions, or, more strictly speaking, past conditions, and, therefore, are useless for the purposes of our subject.

(2) *Fundamental Statistics as Indices*

Fundamental statistics relate to underlying conditions of the country and make it possible to forecast demand, supply, money conditions, etc. Fundamental statistics, although now used by only the most careful investors and merchants, are by far the most necessary and profitable. All financial history has consisted of distinct cycles, and, although of different durations, each cycle has consisted of four distinct periods; namely, 1. A Period of Prosperity. 2. A Period of Decline. 3. A Period of Depression. 4. A Period of Improvement.

Moreover, the laws of nature, commerce and industry determine that these cycles shall always consist of four distinct periods. The idea that prosperity can ever become permanent and will not be followed always by a business depression, or the idea that there can be an unlimited period of depression without succeeding general activity and high market prices, shows both ignorance of economics and utter inexperience in the business world.

Theoretically, there should be a state where everybody is prosperous and nobody overtrades, where the cost of living is reasonable, and the wage-earner has a margin to save for old age or establish a higher standard of comfort. It is true that we have never so far seen a condition so equable. The record of crises and booms can be carried back beyond the history of this country, and we can

start from the opening years of the eighteenth century, when William of Orange was on the English throne. We can trace a commercial cycle once in five to ten years, and we can carry the study into the last century, knowing that European conditions were exactly reflected on this side of the Atlantic.

"A state of equilibrium is apparently the most difficult of all for the world's trade to maintain. We can theorize about crops, consumption, capital, labor and a score of other factors, but human nature is, after all, at once the least stable and the most unchangeable factor of them all. Business may be quietly good, but that ambition to which we probably owe also the greater part of the world's progress insists upon forcing it beyond reasonable capacity. The result is always the same. The result of years of saving is overconfidence, inflation, waste, conversion of floating wealth into fixed wealth, and, finally, collapse and panic. Here is the plain evidence of two hundred years, and, it may be assumed, at no risk that it is the evidence of all commercial systems. Joseph with his seven fat years and his seven lean years expressed nothing more.

"What is not so readily realized is that a panic is followed by rapid recovery in stock prices, and one slower, but still relatively quick, in general business. This again is followed by an arrest in business where, contrary to assumptions just as hasty and ill-balanced as those which cause a bear attitude on a panic break, boom conditions are not immediately restored, nor does anything of the kind develop within a year or so of the crisis. The first recovery runs too far and has always run too far. What follows is not collapse, but dullness. It becomes imperative to make real savings in order to build up for the next boom in business."

A list of twenty-five subjects about which merchants and investors systematically collect, analyze and index statistics is given in Chapter IV of my book on *Business Barometers.* These are the subjects studied by the oldest, richest and most conservative financial and mercantile houses of the world, for determining which of the above-mentioned periods the country is experiencing or is about to enter at any given time. The use of fundamental statistics eliminates all guessing and uncertainty concerning mercantile and market movements and gives a barometric index of conditions of trade.

The only requirement is to collect, tabulate and study the weekly and monthly figures as they are received. These plainly

show whether the general tendency of a market is upward or downward, and whether it is the time to buy, or to sell, or to do neither. As above stated, these fundamental statistics are even more important than comparative statistics. Not only are the latter of little value, unless supplemented by these fundamental statistics, but experience has shown that such investors as have confined their operations to standard securities, and such merchants as have bought standard goods, have made fortunes for themselves and their customers by a study of these fundamental statistics exclusively.

The ablest bankers, merchants and investors collect data under twelve headings, or on about twenty-five subjects, as follows:

I. Building and Real Estate: (1) Including all new building and fire losses.

II. Bank Clearings: (2) Total bank clearings. (3) Bank clearings excluding New York.

III. Business Failures: (4) Failures, by number, amount of liabilities and percentage of failures to number of firms in business.

IV. Labor Conditions: (5) Immigration figures.

V. Money Conditions: (6) Money in circulation. (7) Comptroller's reports. (8) Loans of the banks. (9) Cash held by the banks. (10) Deposits of banks. (11) Surplus reserve of banks.

VI. Foreign Trade: (12) Imports. (13) Exports. (14) Balance of trade.

VII. Gold Movements: (15) Gold exports and imports. (16) Domestic and foreign exchange and money rates.

VIII. Commodity Prices: (17) Production of gold. (18) Commodity prices.

IX. Investment Market: (19) Stock exchange transactions. (20) New securities.

X. Condition of Crops: (21) Crop conditions and production of other commodities.

XI. Railroad Earnings: (22) Gross and net earnings. (23) Idle car figures. (24) Miscellaneous.

XII. Social Conditions: (25) Political factors.

These twelve main subjects have by custom come to be known among merchants as the twelve barometric indices of the condition of trade, and may be briefly described as follows:

I. The number of miles of new railroad constructed, together with figures on building statistics, gives a clew to what new con-

struction is going on throughout the country. The exactness with which business conditions could have been foretold in the past by such figures is truly marvelous. It may be stated also that as iron is one of the first commodities to fall in price, and one of the first to rise, all merchants watch the price of iron as an index of the amount of steel in demand, and, therefore, as a barometer of actual conditions.

II. Bank clearings are an extremely good barometer of present conditions, and are watched with keen interest by all successful merchants and manufacturers. Many large corporations each week compare the changes in their total sales with the changes in the total bank clearings of the country. If they find that bank clearings continually show an increase, while their sales remain fixed, they immediately try to discover the reason therefor. Moreover, some firms divide the country into sections, and compare by sections their sales with the bank clearings for said sections, thus having a check on the work of each individual sales office.

III. Failures, both in number and amount, are especially good barometers of the conditions of trade. By ascertaining each month the average number of concerns in active business, and the number that have failed, the percentage of failures may be readily determined. Contrary to the ordinary impression, too few failures foretell disaster and panic.

IV. Figures on immigration are carefully studied by manufacturers as indicative of the conditions of the labor market. Thousands of immigrants arriving at Ellis Island indicate good surface conditions, with high prices for labor; but too large immigration figures foretell a change in conditions, followed by a period of depression. On the other hand, when large numbers of steerage passengers are leaving the country, and the incoming steerage is reduced, business is in a state of depression, although when the tide turns and immigrants again begin to arrive, it is a sign that conditions are again improving.

V. Money is the basis of all trade, and is, therefore, probably the most sensitive of all barometers. Money is the representative in value of all things traded in, and the scarcity of it seriously hampers the manufacturer and the merchant. Low money rates usually indicate poor present conditions, but tending toward improved business; while high rates usually signify very prosperous

present conditions, but often foretell a coming panic. The active merchant, moreover, not only studies the money rates of this country, but also the average of the bank rates of England, France and Germany. Each Thursday the Bank of England publishes a statement, and makes an announcement as to the rates of discount at which it will handle first-class paper until further notice. This practically fixes the discount rate throughout Great Britain, and a continued increase or decrease of the rate in England is sure to be followed eventually by a similar movement in this country.

VI. Figures on foreign trade are also of great value. The foreign trade of the country bears the same relation to the nation, as a whole, as the income and expense of an individual bear to the financial condition of the said individual. A man who for any length of time spends more money than he receives, is sure to eventually have trouble, and it is the same with the nation. Moreover, as the financial prosperity of the individual is almost in direct proportion to his net income, so the prosperity of a nation very largely depends upon the volume of its foreign trade.

VII. Monthly gold movements are also important for study in forecasting money rates, although, like idle car figures, they are of little value after the actual annual figures are published.

VIII. The subject of commodity prices is very important. The amount of money required to carry on a definite volume of business becomes very much greater as business increases. For this reason, bankers very carefully watch commodity prices, knowing that high money rates invariably follow a marked increase in commodity prices.

IX. The number of transactions and the prices of stocks on the New York Stock Exchange are also interesting to merchants, as well as to investors. The way money is made on the New York Stock Exchange is by anticipating price changes. The leading operators have statisticians continually studying fundamental conditions, in order to forecast future conditions and base their purchases and sales on the information obtained. Therefore, a slowly sagging market usually means that the ablest speculators expect in the near future a decline in general business; while a slowly rising market usually means that prosperous business conditions may be expected, *unless the decline or rise is artificial and caused by manipulation.* In fact, if it were not for manipulation, merchants could

almost rely on the stock market alone as a barometer, and let these large market operators stand the expense of collecting the data necessary for determining conditions. Unfortunately, however, it is impossible to distinguish between artificial movements and natural movements by studying the stock market alone, therefore, although bankers and merchants may watch the stock market as *one* of the barometers, they should give to it only a fair and proportional amount of weight.

X. Of all statistics published by the government, the most important to the merchant are crop reports. Most of the government figures refer to what has happened in the past, and many of these figures are published a year or more after the events have happened. In the case of the crops, however, the government actually forecasts. Therefore, all crop statistics are especially valuable to manufacturers and merchants.

The crops are the mainstay of America, and approximately one-half of our population is directly dependent upon agriculture. Crop conditions form the basis of James J. Hill's predictions and business ventures, and Mr. Hill, by the way, is a great student of fundamental statistics. The principal crops, grain and cotton, have a tremendous influence upon our wealth. Many industries and mercantile firms are absolutely dependent on the crops, and commodity prices are always more or less dependent thereon. The grain and cotton reports issued by the government are watched with great interest, and manufacturers and merchants even watch the weather reports throughout the West, the progress of the "green-bug," the condition of the crops in the Argentine Republic, Russia and other countries. Normal crops are usually followed by a year of uncertain conditions.

XI. Railroad earnings are extremely instructive and are used by some merchants in preference to many of the above subjects. Practically all manufactured goods, and even supplies in the local retail stores, are shipped by railroads; therefore, a weekly record of freight which the railroads are carrying serves as a barometer of the business of all the farmers, manufacturers and merchants of the country. Moreover, the steel companies, the car and the locomotive builders, the coal industry and many other industries are directly dependent on the railroads for their prosperity. Therefore, all merchants watch railroad earnings and new mileage constructed, and

always reduce or increase their stock of goods in accordance with what these reports show.

XII. Political factors. Trade is always dependent upon the wise conduct of our national government. War clouds, even although at first not involving our nation, strongly affect all commodity and investment prices. Of course, all are not affected in the same way, as a war scare increases the prices of some commodities and reduces the prices of others; but all are affected in some way and to some extent. Even the President's message, and especially tariff discussion and the approach of a presidential election, greatly affect prices and trade.

To conclude, each of these twelve subjects is intimately bound up with what are known as "swings," during which all prices change from "high" to "low" and the reverse. As heretofore stated, all financial and commercial trade during the past two hundred years has been divided into distinct cycles, and each cycle consists of four periods: a period of prosperity, a period of decline, a period of depression and a period of improvement. Each period is accompanied by distinct changes in the prices of stocks, labor and commodities, and, by comparison with similar periods in previous cycles, it is possible with a degree of certainty to determine at about what period in one of these "swings" we happen to be. If the swing is far out over the perpendicular, we are sure that the pendulum must swing back of the center as far as it swung forward, because action and reaction are always equal where the "area" consumed is considered.

No country, however, can be prosperous unless it is progressive. No nation can stand still; it must go either forward or backward. The normal demands of our country for new construction must show an increase each year to have conditions even remain constant. There must be a distinct increase in order to keep the vast number of our new citizens busy. Therefore, in comparing the present with the past, equal or slightly greater figures do not necessarily mean better conditions; but in many instances may mean an actual falling off. This is very important and must be remembered when estimating an area to use for comparative purposes in connection with the composite plot which will be described later.

Some firms, when interpreting figures on each of the various subjects for surface conditions, prefer each month to determine

what the proper normal figure should be for each of these subjects, and note the relation between the actual figures for surface conditions and these normal figures. The normal figure on any one subject is obtained by plotting the yearly figures on that subject for a period of ten or twenty years, and by drawing on that plot a line showing the average trend for the entire period. Firms using this system obtain the normal figure for any future time, assuming that the general direction of this normal line will continue the same. Moreover, in the case of some subjects, it is often clearer to plot the *relation of present figures to a ten-year average,* rather than the actual figures. This is especially true with plotting commodity prices and other figures which show only a slight variation with seasonal changes.

The amount of money which can be made by the study of such statistics is limited only by the original capital and the number of years the study is continued. Comparative statistics treat of comparative conditions, and are used for selecting securities and commodities which are absolutely safe and which have the greatest prospect of increase in market value under fixed market conditions. Fundamental statistics treat of underlying conditions and are employed as barometric indices for determining these general market conditions and whether or not it is wise to purchase or to sell, or to do neither. Investors use their indices in order to purchase securities only when they are low, holding them for from two to four years until they are high, and then selling and depositing in a bank the proceeds received therefrom. After said sale, they leave the money on deposit for from two to four years, until the same securities again sell low, when they withdraw the money and again purchase them or other high-grade securities.[1]

Many such investors triple their money about every five years, with very little risk and with little trouble. By a study of fundamental statistics some individuals, with equally little risk and without any marginal purchases, but by purchasing outright, high-grade, dividend-paying securities, have turned an investment of $5,000 to $250,000 in about twenty years. When one realizes the meaning

[1] If this withdrawal at the time of a panic meant the hoarding of money, taking the money from circulation, we should not recommend any such course. Instead, the money is only withdrawn from one bank and deposited in another, probably being used to liquidate some loan.

of this—that an investment of $20,000 grows to $1,000,000 within twenty years—the value of fundamental statistics is apparent.

Merchants who never buy or sell securities use this data with equal profit. Fundamental statistics clearly show the merchant when to buy and increase his stock of goods, and when to cut prices and reduce his stock. They also enable the merchants to forecast money conditions in order that they may intelligently decide whether to borrow the money necessary to allow customers further credit, or to reduce their own loans and the indebtedness of customers. Moreover, at all times these figures show a merchant the conditions of business throughout the country, so that he always knows whether the growth or contraction of his business is proportional to that of his competitors.

Upon careful thought it is evident that the fortunes of American merchant princes must have been created by a study of these barometric indices, rather than by simple selling to the trade at a nominal profit. Therefore, not only does the proper use of fundamental statistics insure a merchant against losses, but their use should be almost as profitable to him as to the investor, enabling him to double and triple his capital every few years.

The Theory Involved

Up to the present point this paper has outlined what is meant by fundamental statistics and the great value of such statistics to bankers, merchants and investors. The purpose is to show why the subjects mentioned are studied and what evidence we have for using the laws upon which our barometric indices are based.

That there have always been periods of depression and periods of prosperity and intermediate periods, every one already knows. There is absolutely no dispute regarding this first point, but opinions distinctly differ as to the duration of these periods. It is the general impression that the great major cycles are of about twenty years' duration, and the minor cycles extend over about ten years, with possibly intermediate cycles of about five years' duration. Probably the most interesting work on this subject was done by Samuel Benner from 1875 to 1884, who formulated a most elaborate system of charts and who, without doubt, clearly foretold the panics of 1884 and 1893, and the prosperous years intervening. Many other men have devised other charts and theories—some based on sup-

posed economics and others based on superstition—but all have been found to fail and have passed into oblivion.

Upon careful examination, however, all these charts and theories have two great defects, and it is only because the laws which we discuss here eliminate these two defects that this paper deserves attention.

Reaction Equals Action

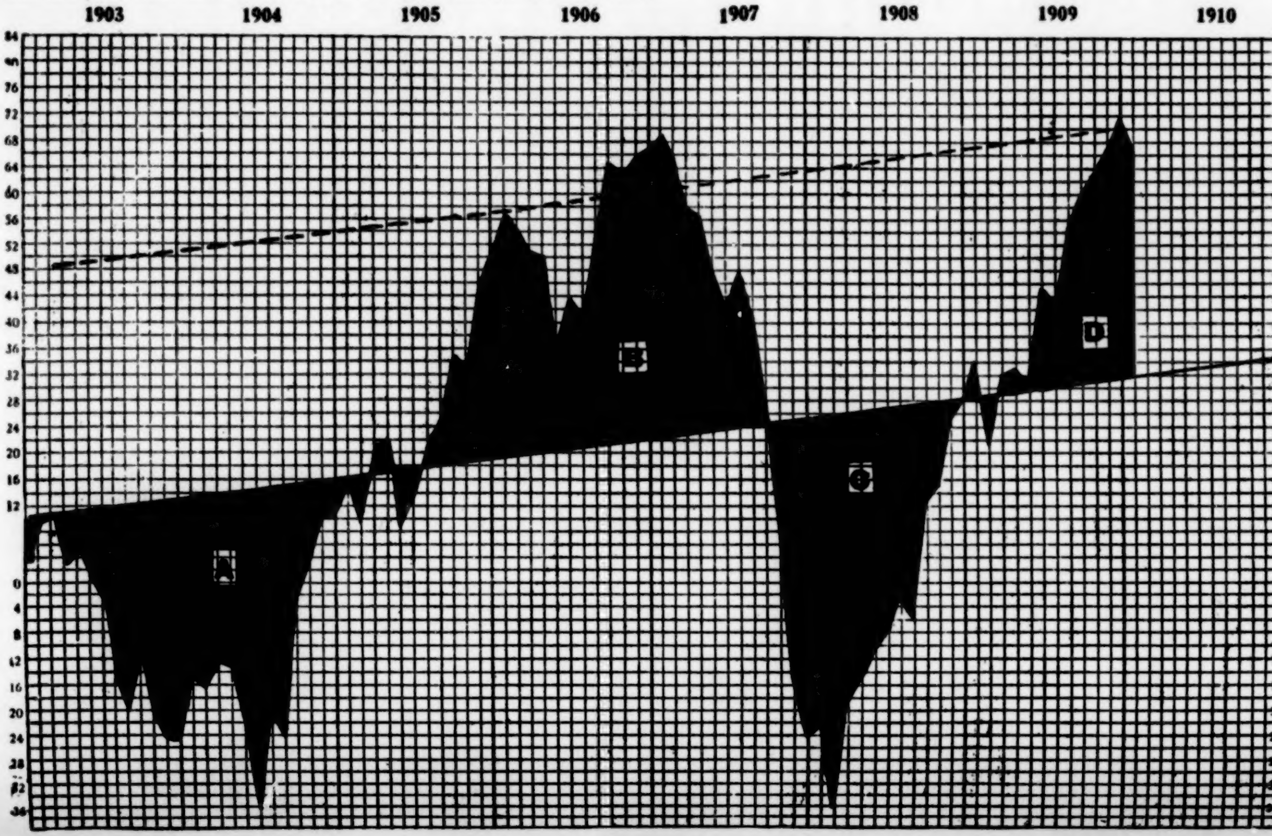
The first defect in the old theory of Benner and other writers consisted in the fact that they based their calculations on either time or activity, separately, instead of on their product. There is no law in physics or nature stating that any action or any reaction must come with any definite regularity. The law upon which mechanics, medicine and other sciences are based is that "action and reaction are equal." This is absolutely true; but when a mechanic or physician or any one else attempts to go one step further, he fails completely. Action and reaction are equal; but of what "reaction" consists, there is no known law to determine. For instance, we may say that certain reaction amounts to one hundred foot-pounds. But whether the body weighs one hundred pounds and is moved one foot, or weighs only one pound and is moved one hundred feet, we have no way of knowing.

In other words, to say that a period of prosperity or a period of depression will last any given time—irrespective of the business activity of the country during such time—is contrary to all basic law. Yet upon such reasoning most of our predecessors have worked, while the others believed that a change in conditions comes when figures for pig iron, bank clearings or commodity prices reach a certain point. They entirely ignore the product of time and activity. Yet only by multiplying one by the other can the true "reaction" be ascertained. Time may be compared to space, and activity may be compared to weight, and their product to space multiplied by weight or "foot-pounds."

For this reason, when studying a composite plot like the annexed, which is based on all the twelve main subjects heretofore mentioned, able bankers and merchants to-day do not study height nor length, but simply area. Or, to refer again to this composite plot, such men believe that the shaded areas above the average line must approximately equal in area the shaded areas below the aver-

COMPOSITE PLOT OF THE ACTUAL BAROMETER FIGURES FOR SURFACE CONDITIONS

NOTE: If action and reaction are equal, an area at D equivalent approximately to the area A, B or C must be consumed before another depression. In other words, if the plot of the new Summary Barometer Figures rapidly works upwards, prosperous conditions will last only a year or two; but if the figures remain constant, thus giving a horizontal line, prosperous conditions may last several years. Also, it should be remembered that, although manufacturers and merchants can count on good business during the entire area, yet the stock market usually turns before one-half of the area is consumed and the bond market when about one-fifth or one quarter is consumed.



age line. Therefore, if the country is enjoying a condition of only medium activity, prosperous conditions may be expected to extend over a longer time than if tremendous prosperity now abounded, and vice versâ. Leading bankers, merchants and investors, therefore, collect data on all these subjects in order to keep always informed as to the area being consumed, which is the first and most important step in forecasting future mercantile, monetary and investment conditions.

All Subjects Must Be Considered

The second great error heretofore made by these economists consisted in the fact that each man seemed to focus his attention on only one or two subjects, instead of making a composite interpretation of all. Some would study bank clearings, some foreign trade, others gold movements, and so on, believing that, as the figures on their especial subject or subjects changed, it was possible to forecast future conditions. Many still believe it is possible to follow certain other subjects in this way; but all such systems are absolutely mistaken. No one of these subjects, when studied independently, serves to foretell the great changes in conditions which have occurred since 1860. Some of the subjects seem to work out better than others; but all of them entirely fail to give proper warning in some one instance.

For illustration, gold movements formerly were used as one of the very best barometers of future conditions. During heavy imports of gold, such as occurred in 1878-1882, the United States enjoyed unparalleled prosperity, and after said imports declined, and the exports of gold exceeded the imports, as in 1882-1883, there followed the panic of 1884. This same rule worked most admirably in forecasting the prosperous times of 1888-1890, again the panic of 1893, and again the prosperous times of 1898-1902. The rule, however, did not work well in forecasting the panic of 1903, nor the prosperous years following; while the heaviest imports of gold the United States ever enjoyed occurred just preceding the panic of 1907. Of course, the reason for these huge imports in 1906-1907 is now well understood; but any one who in 1906 studied the bare figures, without knowing that such importations were artificial, would have been justified in expecting 1907-1908 to be years of great prosperity. On the other hand, such an error would not have been

possible if a study had simultaneously been made of the other leading subjects.

In short, a study of all these subjects reveals the fact that no one of them can always be depended upon; but that in the case of every panic, or other change in business conditions, some one or more of the subjects fail to give the necessary warning. *On the other hand, such study has shown that there has not been a single case when a change in conditions has not been fully and plainly foretold by a majority of all the subjects.* If one will study the figures or plots which treat of the twelve or more most important of subjects, the following facts are self-evident:

Four general rules can be worked out for each subject—one rule for each of the four periods of prosperity, decline, depression and improvement, respectively. These rules are given in detail for each of the twenty-five subjects, in Chapters VI, VII and VIII of my book, *Business Barometers.* The basis of these rules is that such very high figures as appear during very prosperous conditions foretell a panic or period of decline; when the high point is passed and the plot points downward, as occurs during a decline, a period of depression may be expected; very low figures, such as appear during a depression, foretell a period of improvement; and when the low point is passed and the plots turn upward, as occurs during a period of improvement, prosperous conditions again may be expected.

Although bankers and merchants may often rely upon what *one* of these subjects signifies, yet it is never safe to do so. On the other hand, it is safe always to depend upon what the majority of the subjects signify. That is, if during prosperous times we are studying twenty-five subjects, and more than fourteen signify either "no further improvement" or "caution," then we may begin to prepare for trouble which is sure to follow. Conversely, if during a business depression fourteen of the twenty-five subjects foretell "improvement," then improvement will surely follow.

Final Deduction

Therefore, after reducing all figures to a single composite plot, in order to ascertain the "area" above or below the average line, the figures are again referred to and interpreted as to underlying conditions in accordance with the laws just outlined, which laws

are self-evident from a study of the charts and figures. If both the composite plot and the interpretations foretell the same change, it may be expected to come to pass; while if both do not foretell the same change, one may assume that at a given moment conditions are uncertain, although a week or so later this uncertainty may not exist. This practically completes the work, although as a further check, it is interesting to look back over previous history and ascertain what changes, after such conditions as exist to-day, have followed in the past. This is accomplished by referring to points in the various past business cycles when (1) the same area above or below the average line existed as exists to-day; and (2) when a majority of the twenty-five subjects foretold according to the above rules the same that they foretell to-day.

In short, the study of these barometric indices for studying trade conditions consists simply in ascertaining present surface conditions and interpreting them with the view of forecasting future conditions. In many ways the work resembles the work of a physician. A man goes to his physician to be examined for life insurance and the physician first obtains a knowledge of the man's present condition by an examination of his pulse, temperature, kidneys, respiration, etc. The physician secondly refers to his medical library and ascertains what usually follows when a man's heart, kidneys, lungs, etc., are in such a condition as the patient's, and thus interprets these symptoms. The physician thirdly combines his knowledge of the man, his present condition, his mode of life and his symptoms, and forecasts for the insurance company the length of time—in his opinion, based on previous history—the man has to live. That action and reaction are equal, and that history usually repeats itself, is the foundation of the science of medicine, and upon such a foundation the great business of life insurance is absolutely dependent. The person who believes there is nothing to the science of medicine, and that any average man knows as much and can advise as well about his bodily condition as a highly trained physician, is not expected to be a believer in fundamental statistics. On the other hand, one who does have faith in the knowledge and advice of an able physician should give this subject most careful respect and attention.

The Mechanical Work

In the first portion of this article we studied the meaning of barometric indices and their use; this was followed by a study of the theory underlying the work and the reasons why indices can be depended upon. At this point space may be given to explaining the mechanical work of compiling and reducing these figures to one single "summary barometer index figure" such as is the basis of the above-mentioned composite plot.

In approaching this part of the work, although other methods may seem sufficient, the need of direct and definite results leads the student to seek a systematic, comprehensive and uniform practice, so that a basis of comparison, from period to period, may be established at the outset. The course usually followed by the leading bankers, merchants and investors is to collect data, covering a long period of years, and relating to the twenty-five or more subjects compiled under the twelve headings previously mentioned.

The figures on these twenty-five subjects are kept upon large desk sheets, which are usually divided into twelve sections. It takes many years to accumulate these figures, as they represent slow and careful research. They are the foundation of the entire work, and it is impossible to make practical use of fundamental statistics as a barometric index of the condition of trade excepting in connection with these tables for preceding years and months.

The twelve headings already described are arranged so they may be grouped and classified under the three following divisions. These divisions are purely arbitrary, as every subject affects in some manner each of the three divisions:

Corporations and merchants especially study:
New building and iron production.
Bank clearings.
Business failures.
Labor conditions.
Earnings, crops, politics, etc.

Bankers and others loaning money especially study:
Money conditions.
Foreign trade.
Gold movements and foreign money rates.
Commodity prices.
Clearings, failures, politics, etc.

Stock exchange firms, bond houses and investors especially study:

Prices and transactions
Crop statistics.
Railroad earnings.
Social and political factors.
All figures on mercantile and monetary conditions.

Investors and merchants who carefully study the figures on these subjects each week first reduce them to three barometric index figures, one for each of the above three headings. In addition, these three figures for present surface conditions are averaged and a final summary barometer figure for present surface conditions obtained. Practically speaking, these barometer figures on surface conditions are mathematically correct, being obtained by compiling the actual figures on bank clearings, money rates, stock exchange prices, transactions, etc., comparing them with certain scales of measurement and averaging the final results. These figures, therefore, are not a matter of opinion, and any two persons using the same scale [2] would arrive at the same conclusion. The main use of the summary barometer figures is to plot the "area" mentioned earlier in this article; but these figures are also interesting for other purposes. If, for instance, during a period of depression the summary barometer figures for a long period of weeks show a continuous but slow increase, the country is usually facing improved conditions, however poor business may appear to the average merchant. On the other hand, if during a period of great prosperity, the barometer figures for surface conditions continue to increase, there is liable to be a change for the worse at any time. Also the greater the difference between the respective barometer figures, the sooner the change may be expected.

But in addition to collecting statistics each week or month from which to deduce barometer figures, bankers and merchants have the monthly figures, on each of the twenty-five or more subjects mentioned above, interpreted each month for what they signify. Such interpretations are made in accordance with the rules above referred to, and show how many subjects signify a "continued improvement," how many signify "no improvement," and how many

[2] Moreover, persons using different scales would obtain similar plots. Although their definite figures for each week or month would differ, yet the relation of one week to another should be identical.

signify "no change." Figures on the majority of these twenty-five subjects can be obtained not oftener than monthly, and, therefore, the entire ground need be covered in detail but once each month. As reported, these figures are inserted each month in their respective tables, and in addition to showing present conditions they also serve as a means of making an intelligent estimate of what will be the final or total figures for each of the twenty-five subjects at the end of the current year. This portion of the work is known as the monthly report.

This estimate for the year, which is used when plotting the figures on any one subject, is then compared with the final figures for the preceding years as given under the first-mentioned table; that is, the table showing conditions by years for a considerable period of time. If there has been a normal growth or change—sometimes a favorable showing requires an increase and sometimes a decrease—the figures on a given subject are considered as signifying satisfactory conditions; but if a growth or a change is abnormal, the figures are considered as showing unsatisfactory conditions. In other words, satisfactory conditions require a normal change, and figures of much less than normal or much more than normal are considered unsatisfactory.

The industrial organization of the country is similar to the physical organization of the human body. The individual normally should have a certain appetite and should require a normal amount of food. The normal appetite increases from childhood to youth, and from youth to maturity; but its relation to health is the same. So long as a man regularly eats a normal amount, he continues to increase in strength and vitality; but if he overeats, or is underfed, he ceases to gain strength, his efficiency is reduced, and he becomes subject to attacks of disease. As, therefore, the maintenance of good health requires a certain normal balance, so do the prosperous conditions of industrial life. This, however, does not mean fixed conditions, as in a rapidly growing country like America, the figures to be normal *must increase in proportion as the wealth, population and activity of the country increase.* Great increases or great decreases are distinctly not normal, and are always significant of a marked change; a change for the better in time of depression, when present conditions are very unsatisfactory; or a change for the

worse during a period of prosperity, when present conditions are apparently very satisfactory.

This principle is well illustrated in the case of money rates, for instance. When money rates gradually increase, and surplus reserves gradually decrease after a period of depression, the combination is significant of improved present conditions; when commercial paper is discounted at 3½ per cent., one may always be sure that the country is not prosperous; that many factories are idle and many men out of work. As the mills resume operation, and as business becomes more active, money rates increase and surplus reserves decrease, all of which increase is shown by higher barometer figures for surface monetary conditions. On the other hand, as money rates increase too greatly, and the surplus reserves decrease to very low figures, the change is significant of unsatisfactory future conditions. In other words, when money rates are below normal, business is dull, but may soon be better; and when money rates are above normal, it shows that business is good, but may soon be worse.

Of course, if this data were obtained by each investor, merchant or banking house independently, it would require a force of clerks to collect, analyze and sort the mass of figures, but as the data may now be obtained from a central agency, all of the drudgery is eliminated. The investor or merchant may simply note these barometric indices, as they are made up each week, and thus keep in constant touch with surface conditions, and always know how much of the present period (whether of prosperity or depression) has been consumed. By reference to the tables, the monthly figures may be interpreted once a month in accordance with the rules mentioned. But the average banker, merchant and investor is satisfied to depend upon the barometer figures and reports furnished by the central agency, and does not make a personal examination more than once or twice a year, excepting in times of panic or uncertainty.

But whatever the time or money expended, merchants and investors always obtain great profit from such studies, as they give a clear idea not only of the present surface conditions, but also of underlying conditions, the relation of both to normal conditions, and consequently what may be expected in the future. If, during a period of depression, uncertainty and discouragement, the barometer figures and the charts show distinctly that the country is

about to enter a period of prosperity, investors buy stocks, merchants buy goods, and the banker extends loans. The result is that when prosperity returns, such investors and merchants find that they have purchased very much below the prevailing prices, and obtain many times the profit that they otherwise would.

During a period of great prosperity and extravagance, when everybody is buying goods or securities and there is a general increase of indebtedness, if these barometer figures and charts foretell a change for the worse, such investors sell their securities for cash, such merchants reduce their stock and outstanding credits, and such bankers reduce loans or place a large part of them "on call." These statistics, therefore, not only serve as an insurance against loss, but enable these men to be prepared to take advantage of the very low prices which are sure to recur in the course of a year or two.

The Great Possibilities

First, a word to bankers: Banks have two distinct functions.

(1) They aid in the planning and carrying out of transportation, industrial and commercial enterprises by providing the capital therefor.

(2) They regulate the number and growth of such enterprises by conscientiously increasing or contracting this supply of capital.

The first function is performed by collecting money from a large number of people, known as "depositors," and loaning the same for definite periods through the purchasing of commercial paper and other securities such as few individual depositors would be able to buy extensively. The second function is performed by varying the amount of cash and securities held; for instance, during periods of panic or of depression, when individuals withdraw money from useful channels and withhold cash, it is a bank's duty to give all cash possible by purchasing such good commercial notes and high-grade securities as are selling below their true value. On the other hand, during periods of great prosperity, it is a conservative bank's duty to dispose of a large portion of this commercial paper and these other securities, storing up large cash reserves pending the next period of money stringency and panic conditions.

In this way banks not only can perform a great service to both depositors and borrowers, by combining small sums and loaning them

in safe and profitable channels, but also can act as great regulators and "storage basins" for the entire business community. A bank can store cash during periods of great prosperity, when the public is willing to loan to anybody and buy anything, and then give out such cash during periods of depression when the public refuses to loan solvent borrowers or to purchase even the highest grade securities. For performing these two functions the bank receives a twofold reward; namely, the market rate of interest on the loans and securities held, and also a large profit on the purchase and sale of securities. It not only more fully serves its true purpose in the community, but also makes very much greater profits and assumes much smaller risks.

In other words, such a bank will receive an income of over 4 per cent. upon its investments and a profit of from 10 per cent. to 20 per cent. on their sale, besides being in the strongest possible condition with very large reserves at the time of a crash or money stringency. The use of these barometer figures insures not only the profits of good loans and satisfactory sales, but also it insures the purchase of only the highest grade securities, and indicates the time for disposing of such property before the money is needed for reserve and the accommodation of local customers.

Secondly, a word to merchants: The old plan for corporations and merchants to borrow always about the same amount of money each year, to carry about the same amount of merchandise and to extend about the same amount of credit to customers, is entirely wrong. The most successful corporations and merchants are those who study fundamental statistics and who base their borrowing, their buying and their credit policy on what these figures show. By such a method a merchant knows when underlying conditions are becoming sound and a period of improvement is at hand; while he will reduce loans, dispose of all merchandise possible and decrease the credit extended to customers, when the figures on these subjects show that conditions are becoming unsound, and the country is about to enter a period of high money rates and declining commodity prices.

By studying these underlying conditions he is able to change his position and policy at a time when those who do not possess these figures have not the slightest suspicion that the country is on the verge of a severe panic.

Third, a word to investors: Another poor principle is embodied in the old plan of investing money as accumulated, as well as in all forms of speculation. The safest and most successful method of investing is to watch the barometer figures on the twenty-five subjects mentioned, and then to buy and to sell only when these subjects plainly show which to do, *confining all purchases to the very highest grade securities.* By such a method purchases are made only at the end of a long period of declining prices, after which securities are held from two to four years until the figures on these twenty-five subjects show that prices have about reached the top. Then they are sold, the proceeds reinvested in short-term municipal notes and high-grade bonds maturing in from one to three years, or else deposited in banks. During these years a panic invariably comes when this money will again purchase, at from 20 per cent. to 50 per cent. less price, the same high-grade securities that were sold a few years previous.

By this process an investor averages an annual income of about 8 per cent. from money invested in the highest grade bonds, and about 16 per cent. from money invested in the highest grade stocks. Moreover, he is always in an impregnable position with large cash assets whenever trouble comes, while *this method eliminates all necessity for borrowing or purchasing on margin.* Of course, if this method contemplated purchasing anything but the highest grade securities, it would simply be one form of speculation; but considering the character of securities purchased, this is a much more conservative method than to purchase the investments whenever one has idle money, irrespective of conditions, either for permanent investment or to sell again, which is the method followed by those who do not possess and study these figures.

Fourth, a word to brokers and bond dealers: During eleven years given exclusively to work for the largest bond and stock exchange firms, the author found that some firms are always prepared for every change in monetary and investment conditions, and universally profit thereby—while others are often unprepared and either sustain losses or are handicapped by heavy commitments. Moreover, in nearly every case, I found that these most successful firms gave much study to fundamental statistics and planned their business policy in accordance with what such statistics foretold.

Firms who have watched these figures during the past years

have always been prepared for every period of high prices by having previously purchased large amounts of long-term bonds at low prices. As money rates have increased, such firms and their customers have gradually reduced their loans and changed securities. By such a policy they are always able to trade at the market and still make a profit. When these figures have foretold a coming period of money stringency, such firms have purchased and recommended only short-term notes and bonds maturing within one or two years, which insures that they and their customers will at critical times have large cash balances in order to take advantage of every period of low prices. Such firms not only make great profits, while at the same time they are keeping themselves in an impregnably strong financial condition, but create a most loyal and valuable clientele.

Many firms do not become interested in short-time notes until money rates are high and investors should be buying long-term bonds. Of course, this is the time for corporations to become interested therein; but not bond dealers, who should purchase and recommend short-time notes before money rates are high and when bonds are selling at top prices.

Some bond dealers may object to this policy and discourage customers from "taking profits" on bonds, but urge them to hold all bonds until maturity. Aside from this policy being unfair to the investors, we know that some, considering even their 10 per cent. profit, make much less money during a long period of years than if they would adopt the more honest policy and sell more active and high-grade bonds, even although the profits are very much less. The reason for this is that in the latter case they would have many more opportunities to reinvest a given amount of money, making several small profits instead of one large profit, and in addition always have the undivided good-will of the customer.

Once men were needed who were willing to give their lives for their country; but such time is now past. To-day men are needed who are willing to give their country the benefit of their study, judgment and power. But for some reason men seem much less willing to give the latter. Many men, willing to go to battle and give their lives for their country, are utterly unwilling to loan a small portion of their capital. Many men, willing to expose themselves to the bullets of an enemy, when occasion calls, are utter

cowards when it comes to the great affairs of commerce and industry.

Nevertheless, the ultimate prosperity of this country depends, to a large extent, upon whether or not we take the time to watch and study underlying conditions, using our influence in keeping our country in a normal, healthy state. Our nation is like a boy, needing to be strengthened and encouraged during days of trouble and depression, and curbed and checked during days of strength and prosperity. Instead, however, of helping the nation, ninety-nine out of every hundred men follow the crowd or float with the current, becoming discouraged during days of adversity and reckless during days of prosperity.

For this reason, therefore, above all other reasons, I write so earnestly relative to this work. America wants men who are willing to enlist as soldiers—not to kill and destroy—but to study fundamental conditions, and to help hold throttles of the great engines of progress upon which this country so absolutely depends. Each individual who reads this article has the power of making the next panic less severe and the next period of prosperity less reckless, and whether or not we accept this trust, or instead allow ourselves to be swept along with the great majority, decides whether we are to be a benefit or an injury to our country—whether our nation is truly better or worse by having us as citizens.

SOURCES OF MARKET NEWS

By Roger W. Babson,
Editor "Babson's Reports on Fundamental Conditions,"
Wellesley Hills, Massachusetts.

Market news is distributed through seven different channels. Each of these channels is of itself distinct, although all are interrelated in aims, methods, sources of information and other ways. Moreover, although some firms employ all of these seven channels, yet many able investors depend on only one of them. These various sources may be enumerated as follows: 1. Electric News Tickers. 2. Printed News Bulletins. 3. Card Systems. 4. Daily Papers. 5. Weekly and Monthly Periodicals. 6. Annual Manuals. 7. Miscellaneous Mediums.

The following is a brief description of each of these sources:

News Tickers

These are in operation in New York, Boston, Philadelphia, Baltimore, Washington, Cleveland, Chicago, Cincinnati, Buffalo and St. Louis, and also in one or two cities abroad.

The prices of this service range from $30 to $40 per month and all are operated by one syndicate represented by Mr. C. B. Strecker, excepting a competitive service in New York operated by the same interests that control the *Wall Street Journal.*

These news tickers are in the offices of most of the leading stock brokers, and all are operated by electricity through one keyboard in a central office in each of the above-mentioned cities. There is also a close working agreement between Mr. Strecker and the Western Union Telegraph Company. The mechanism for these tickers is practically the same as that of the ordinary stock quotation tickers, excepting that the news tickers require a much wider paper and are much more flexible as to type and sentences. Although it takes some time to print a word, letter by letter, yet theoretically these news tickers represent the quickest form of news distribution.

The Bulletin Service

There are five of these services in operation as follows: Two in New York City at a price of $40 and $30 per month, respectively; two in Boston at a monthly price of $50 and $30, respectively, and one in Philadelphia at a price of $30 per month. Three of these, one in each of the cities, are supposed to be under the control of Mr. C. W. Barron, of Boston; while the other two, New York and Boston, are believed to be under the control of Mr. Strecker's syndicate. The bulletins for a given city are printed at a central office on slips measuring about ten inches by five inches, which are distributed to subscribers about every thirty minutes between 9 a.m. and 3 p.m.

These bulletins give much more information than the news tickers; but, of course, the service is not as rapid. Not only is more time required to set up the type and print the bulletins, but their distribution by boys consumes considerable time. Nevertheless, these bulletins are very valuable and complete, and much credit is due to Mr. C. W. Barron for the remarkable development of the service, which is now almost universally used by the leading stock exchange firms, bond houses and banks. Outside of the three cities above mentioned, there is absolutely no city in the world having a similar service, although "Reuters" claim to have a service abroad modeled somewhat upon the same plan, but on a much smaller and less expensive scale. In short, I understand the whole field, both as to news tickers and bulletins, is controlled by Mr. Barron and Mr. Strecker and their associates, although the keenest rivalry is said to exist between these two men.

Card Systems

Following the news tickers and bulletins in importance, come the card systems, and in this respect the field is divided between the Babson System, Inc.—the older of the two—and the Standard Statistics Bureau of New York. The Babson System has two services, one on stocks and one on bonds, while the other company makes a specialty of stocks. The price of each of the card systems on stocks is $5 per month, and the Babson System makes an additional charge of only $5 for its auxiliary service on bonds.[1] Although 5 by 8-inch cards are used with each of these systems, yet

[1] Dealers may have these bond cards supplemented by a special list of offerings showing who owns and has for sale the various securities, and also who is desirous of purchasing them, giving prices, amounts, etc.

there is a marked difference between the two systems, each having its advantages and disadvantages, viz.:

(a) The Standard Statistics Bureau of New York covers only the more active listed stocks; but delivers the cards by messenger. The Babson System mails its cards; but covers a larger number of companies and usually gives much more information relative to these companies.

(b) The Standard Statistics Bureau makes all corrections and additions on its cards, which is very convenient; but this method often causes a delay in the printing and distribution of dividend news, earnings, etc. The Babson System has part of its information on cards, but the very latest news of dividends, earnings, etc., appears on a daily sheet which is printed and mailed immediately after the stock exchange closes each day, and is in the broker's office by 9 o'clock the following morning.

(c) The cards of the Standard Statistics Bureau stand on the narrow 5-inch end; while the Babson System places the cards on the broad 8-inch side.

Moreover, as the two services are strictly competitive and continually striving with each other to give the most news possible, and to deliver this news in the quickest possible time and in the most convenient form, the leading stock exchange firms, bond dealers and banks subscribe to both services. Not only is this due to the fact that the total price of both card systems is very slight, only $10 a month on stocks or $15 a month with the auxiliary service on bonds, compared with the cost of news tickers and bulletins, but one service serves as a check upon the other.

Both of these card services have several distinct advantages over any other form of distributing and filing news. Not only is the news distributed fairly quickly through these services, but all of the news is automatically and alphabetically filed, ready for instant reference a day or a year hence. With the bulletins several subjects are treated on the same sheet, and the sheets are so many that at the end of the day they are usually thrown in the waste basket; but by having the news relating to each company treated on a separate card, and only the important news sent out, it is possible to retain all cards. If at any time one card supplements another, notice is given to throw away the card which becomes obsolete and replace it by the new card. Therefore, not only are these

card systems used by those whose business does not warrant the expensive news tickers or the bulletin service, but owing to their value as permanent files, both of the competitive card systems, including the auxiliary service on bonds, are used by most of the leading firms as supplemental to the news ticker and bulletin sheets.

Daily Papers

Daily papers may be divided into two classes: (a) those strictly financial, like the *Boston News Bureau* ($12 per year), the *Wall Street Journal* ($10 per year), the *Wall Street Summary* ($8 per year) and others which might be mentioned.

(b) Leading news dailies having able financial writers, such as the *Boston Herald,* $13 per year; the *Boston Transcript,* $9 per year; the *New York Evening Post,* and many others which might be mentioned, such as the *New York Journal of Commerce,* $12, etc.

Weekly and Monthly Papers

The leading weekly paper without doubt is the *Commercial and Financial Chronicle* ($10 per year), which may be found in almost every banker's or broker's office. The *Chronicle,* together with its supplements, probably gives more for its money than any other weekly publication, financial or otherwise, with which the writer is acquainted. In addition to the *Chronicle,* however, there are many other good weekly papers which might be mentioned, and among them the following are of interest:

Banker and Tradesman ($5), Review and Record Company, 127 Federal Street, Boston. Weekly.

Boston Commercial ($2), 246 Washington Street, Boston. Weekly.

Commercial and Financial Chronicle ($10), corner of Pine and Front Streets, New York. Weekly.

Economist ($5), Economist Publishing Company, 189 La Salle Street, Chicago. Weekly.

Electric World ($3), McGraw Publishing Company, 239 West 39th Street, New York. Weekly.

Electric Railway Journal ($3), McGraw Publishing Company, 239 West 39th Street, New York. Weekly.

Engineering and Mining Journal ($5), 505 Pearl Street, New York. Weekly.

Finance ($5), Finance Publishing Company, 316-318 Caxton Building, Cleveland, Ohio. Weekly.

Financial World ($4), Guenther Publishing Company, 18 Broadway, New York. Weekly.

Iron Age ($5), David Williams Company, 14-16 Park Place, New York. Weekly.

Manufacturers' Record ($4), Manufacturers' Record Publishing Company, Baltimore. Weekly.

Money ($5), Finance Company, 711-718 Ferguson Building, Pittsburg, Weekly.

Moody's Magazine ($3), 35 Nassau Street, New York. Monthly.

New York Mining Age ($2), 27 William Street, New York.

Progressive Age ($3), Progressive Age Publishing Company, 280 Broadway, New York. Bi-monthly.

Railway Age Gazette ($5), Railroad Gazette Publishing Company, 83 Fulton Street, New York. Weekly.

Railway World ($4), 822 Witherspoon Building, Philadelphia. Weekly.

Review of Reviews ($3), Review of Reviews Company, 13 Astor Place, New York. Monthly.

United States Investor ($5), Frank P. Bennett & Co., Atlantic Avenue, Boston. Weekly.

World's Work (The) ($3), Doubleday, Page & Co., 133-137 East 16th Street, New York. Monthly.

Stock Exchange Gazette ($7.50), England. Weekly.

Stock Exchange Weekly Official Intelligence ($15), England. Weekly.

Monde Financier ($5). Weekly.

Pour et Le Contre ($4.50). Weekly.

Semaine Financière ($5). Weekly.

Allgemeine Börsen-Zeitung, Germany. Weekly.

Börsen Revue, Germany. Weekly.

Börsen Statistik, Germany. Weekly.

Financier (De) (Pik), Holland. Weekly.

Among the monthly periodicals there are many, and one of the most interesting is a new publication emanating from New York known as the *Ticker.* Although this magazine is different from anything of the kind which has ever been published—and for this reason certain people do not like it—yet it is no doubt one of the most useful and practical magazines ever published for speculators and such investors as buy and sell stocks for a profit. It not only contains many instructive and interesting articles on the general subject of speculation and investment, but also contains an investment digest giving the latest news relative to leading corporations.

There are also a number of general news magazines, such as the *World's Work, Success, Saturday Evening Post* and others which might be mentioned containing from time to time very inter-

esting financial articles. Great changes have taken place in the policy of such publications during the last five years, and the public is being educated and kept informed as to financial matters in a very much more thorough manner than ever before in the history of this country.

Annual Manuals

The three leading manuals are *Moody's,* at $12 per year; *Poor's,* at $15 per year, and the *Manual of Statistics,* at $5 per year. As the cost is so slight, and the competition so keen among these publications, every stock exchange firm, bond dealer and bank should have all three publications each year. Firms and individuals, however, feeling that they can afford only one, I believe, usually subscribe to the Moody service for two reasons: (1) The Moody service endeavors to cover railroad, public utility and industrial corporations and their securities with equal thoroughness. (2) The Moody service has a monthly cumulative supplement, which is intended to keep the main book or manual up to date throughout the year.

However, I believe all of those publications are ably managed and are worthy of the support of all. Moreover, probably each contains some information not contained in either of the others, so that every broker, bond dealer and bank should subscribe to them all—one serving as a supplement or check upon the others. All of these manuals are published in New York, where they may be addressed as per the name of the books.

Miscellaneous

Although there are certain services which I have not mentioned in this article which are perfectly legitimate, and in their way valuable, yet under this heading I wish to mention another class. I especially have reference to the services of tipsters (which are advertised occasionally in the personal columns of certain daily papers, especially in the Sunday editions), and also the cheap market letters issued by bucket shops and irresponsible brokers.

The above is a concise, general description of the seven sources of market news, so far as the public is concerned, although I doubtless have omitted to mention many worthy services and publica-

tions. No description, however, can be complete without also referring to the various sources on which the various publishers are dependent for the material from which the above seven news channels are supplied. These sources may also be subdivided into seven divisions, viz.: (1) Original Documents. (2) Official Statements and Reports. (3) Analyses and Investigations. (4) Bonafide Rumors. (5) Advertisements and "Write-ups." (6) Manufactured Gossip. (7) Miscellaneous.

Original Documents

By these I refer to original documents, reorganization plans and other such papers. All properly prepared descriptions of properties and especially bond descriptions should be compiled only after a careful study of the original documents or similar papers.

There is a tendency among brokers and bond dealers to copy one circular from another and, after this process has gone on for some time the fourth or fifth revision is considerably different from the original document, even when each dealer has been perfectly honest in his work. For while direct misstatements are very seldom made, yet there is sometimes a temptation to omit certain unfavorable features which should be mentioned.

Official Reports

Before a dividend is declared or rights determined upon, many rumors are afloat relative to what action a board of directors is to take relative to such matters. Nothing is known with certainty, however, until the treasurer issues a public official statement, which is given to the press immediately at the close of the meeting of the board, and a few days later is printed in leading newspapers and mailed to all stockholders. Therefore, investors should depend only upon these official statements.

When earnings are compared and analyzed, investors should also make sure that such analyses are based only upon sworn statements of the company officials and that all estimates are especially avoided. Reports filed with the Interstate Commerce Commission, as well as those appearing in the standard manuals such as Moody's and Poor's, are usually of this class, and, therefore, can be depended upon. Moreover, the information distributed through the card systems previously mentioned is usually of this character, as well as crop and other government reports.

Investigations

Although this source of news cannot be depended upon with the same certainty as the first two classes mentioned, an honest and impartial investigation always possesses much merit and is well worth careful study. The *Wall Street Journal* in years past has contained many comparisons and analyses of marked value, and the writer's "Railroad Analyses," which appear in the latest edition of *Moody's Manual,* come under this heading, including as they do his personal opinions.

When reading such analyses and investigations, however, the investor must be able to differentiate between honest analyses and advertising "write-ups," mentioned in the following paragraphs. An honest and impartial comparison of two properties is made for the purpose of aiding the reader to obtain a correct idea of the intrinsic value of one or more securities. The purpose of the "write-up," however, is usually distinctly the opposite; namely, to mislead the reader and give him a wrong idea as to the merits of a security.

Bonafide Rumors

Another source of news which deserves consideration is the publication of bonafide rumors. If a publisher of market news should always wait until such news is sufficiently authorized before mentioning it in his publication, such publication would be of limited use. A publisher is justified in publishing not only official statements, but also certain rumors, provided they are bonafide rumors.

If it is truly current gossip that certain interests are negotiating for the control of a certain property, it is the business of a financial publisher to mention such a rumor, in order to give his readers the benefit of all advance information which it is possible to obtain. On the other hand, such "information" should be given purely as a rumor, and the publisher should make clear that it cannot be confirmed, and that it may have been issued simply to affect the market price of the stock.

Write-ups

All of the above four methods of news are legitimate; but I do not believe that most "write-ups," appearing as editorials and

news items, are legitimate. Of course, some publishers claim that there is no difference between an investigation and a "write-up"; but to me there is a great difference. In the former case the writer has no personal axe to grind; but, believing that he has some valuable information about some property of distinct interest to his subscribers, he prints the results of his study simply to increase the intrinsic value of his publication.

"Write-ups," however, are given by publishers in exchange for money or for "calls" upon certain stock or for advertising or other purposes.

Unfortunately, considerable of this work is common, and the following statement by one publisher is probably true, viz.: "Well, if we didn't do it, the public would be obliged to pay us four times as much for our paper as they do now." Granting, however, that there are many men who would rather pay a small price and be fooled as to news than to pay a large price for a reliable publication, yet right is right and I believe that all "write-ups" should be eliminated and the subscription prices adjusted accordingly.

Manufactured Rumors

Of all the illegitimate work of a financial editor, the very worst is the knowing publication of absolute lies for their effect upon the stock market; and, however guilty certain publishers may be for circulating purchased "write-ups," yet I believe very few are guilty of intentionally publishing what they know to be out-and-out lies. In fact, I believe that our well-known publishers use every effort to eliminate such matter from their work.

However, notwithstanding their diligence, many manufactured rumors persistently appear in print and cause considerable loss either to buyers or sellers. Usually the larger and cheaper the publication, the more difficult it is to keep out such matter.

Miscellaneous Sources

Under this heading may be included various cheap market letters and newspaper advertisements, especially such free advice as floats about most board rooms and brokers' offices. Advertisements of these miscellaneous organs may be found in Sunday papers and should always be avoided.

Of the sources of such news, the writer can state only that

there is usually no source for it at all, it being entirely manufactured under the direction of the person by whom it is distributed. In fact, it is said that many tipsters advise one-half of their clients to buy a certain stock and the other half to sell it on the same day. I recommend that all such tips should be avoided as one would avoid smallpox, firmly believing that it is impossible for one to know how the market will act to-morrow or next week or even next month. Long swings may be forecasted by a study of fundamental statistics; but one stands a much better chance to make money at roulette or dice than by playing for a one per cent. profit on the daily movement of any stock.

Conclusion

How to distinguish between facts and "write-ups" or between legitimate rumors and manufactured tips, it is hard to explain as in a way every one is dependent upon his own intuition. On the other hand, to be able to distinguish is very important in all instances, and absolutely necessary for those who do not subscribe to the highest class of news services. Of course, both the honesty and the accuracy of every publication are generally known, and such reputation is common property which any one may learn by careful inquiry.

To give any rule for those who will not take pains to inquire closely is very difficult. It is, however, well to keep in mind that purchasing information is about the same as purchasing any commodity, and one cannot obtain more than one hundred cents for one dollar. In other words, low-priced publications usually depend upon some other source than their subscriptions for their income, and are, therefore, more influenced by advertising and other considerations than publications which solicit no advertising, either for themselves or other publications. Of course, there are exceptions to this rule; but it is safe to say that the more expensive publications and services are usually the most reliable, and certainly they are less likely to take advantage of their subscribers if upon them they are absolutely dependent for their existence.

INFLUENCES AFFECTING SECURITY PRICES AND VALUES

By Thomas Gibson,
Author of "Cycles of Speculation," and "Pitfalls of Speculation,"
New York.

In discussing the above question it is all-important to bear in mind that the word "values" refers to one thing, and the word "prices" refers to another and very different thing. Both are important, but in choosing a time to sell or buy securities we are primarily interested in *prices as compared to values*. Our great opportunities are created when the two are divorced. If prices and values always moved in consonance, our opportunities would be greatly limited.

For example, the low prices established in the latter part of the year 1907 were occasioned by artificial causes having no bearing on actual values. I do not mean to offer the opinion that the entire decline of that panic year was artificial, but prices had more to do with the case than did values. Prices went far above values in the latter part of 1906, and far below values in the latter part of 1907.

In order clearly to distinguish between these two divisions of the question I will briefly discuss the subject from both standpoints, *i. e.*, influences affecting security *prices*, and influences affecting security *values*. It will be impossible, in the limits which are assigned to me at present, to make any attempt to discuss fully all the minor influences affecting either prices or values, but that is really not necessary, as many of the influences are interdependent. I will therefore confine my statements to the most important factors as they appeal to me.

Manipulation is the most common reason for the segregation of prices and values. It is quite natural that when a man, or a number of men, wish to buy anything, they strive to buy it as cheaply as possible, and that, per contra, when they wish to sell anything, they strive to sell it at the highest possible price

obtainable. This is readily understood and appreciated so far as the traffic in real estate or commodities is concerned, but it is one of the most remarkable phenomena of security price movements that when prices are artificially depressed to facilitate accumulation, or artificially inflated to facilitate distribution, people lose sight of values entirely and become panic-stricken at low prices and foolishly elated when high prices obtain.

The statement of Anselm Rothschild that the secret of his success was "buying cheap and selling dear" appears almost pedantic in its simplicity, yet any man who has had a long experience in the purchase and sale of securities would inform you that in actual practise this rule is diametrically opposed. If we take our most popular and widely advertised security as an example, we find that the broker who vigorously recommended it at ten or fifteen dollars a share was in danger of losing his clientele, and that the broker who laughed at it at ninety dollars a share was execrated. In both instances *values* were lost sight of. Only a few weeks ago a railroad stock selling normally around forty-five dollars a share sold up to about eighty dollars a share in fifteen minutes, and back to the starting point in fifteen minutes more. It would be ridiculous to assume that "values" could change so greatly in the course of a month, but the price changed in an hour. Even more recently a listed security with a discoverable value of between fifteen and twenty dollars a share advanced about ninety dollars and stood at that bad eminence for some time. The bubble was pricked and the false price corrected in a single day.

These specific instances may be construed, or misconstrued, as an argument that any attempt to reconcile prices and values is abortive; but not so. I have offered two extreme instances in order to emphasize the statement that prices and values get separated now and then through manipulation. The man who took the time and trouble to examine the statistical showing of Hocking Coal and Iron would not have considered buying it at ninety, or at eighty, or even at fifty, for that matter.

Fright is a very common cause of disparity between prices and values. Psychologists have written a great deal about the contagious fear of a crowd—whether of a crowd of animals or human beings. We have all observed the effect of one panic-stricken horse or steer on the band to which it belongs. There is but little

difference in the effect on human beings. We may examine the history of ancient and modern times and find that the temper of a mob changes instantly and simultaneously. Shakespeare aptly and clearly illustrates this in the speeches of Brutus and Mark Antony after the assassination of Cæsar. The Commune in France gave numerous evidences of such sudden changes of heart

It is not my purpose to discuss psychology here. Personally I have observed the movements of security prices for many years and tried to explain to my own satisfaction the philosophy of these sudden and apparently unwarranted sentimental changes, but have never succeeded. Nevertheless the fact remains that such periods occur and have their decided effect on prices, even when fundamentals point the other way.

In the latter part of 1907, after the prices of securities had suffered a great decline, people who had kept a good heart up to the crucial moment became suddenly and senselessly possessed with fear and began to throw away or sacrifice good property, and incidentally to aggravate the trouble by locking up and hoarding the medium of exchange. The foolishness of this method of procedure carried it into the ridiculous stages. Just at the time when purchases were warranted we sold; just at the time when we should have been bold we became timid. When our counters were littered with bargains we not only refused to buy, but we hastened to sell, and that is only one instance in a long series of like happenings.

Technical conditions frequently cause or greatly accelerate an advance or decline in prices. Walter Bagehot, speaking of the great swings in prices, says: "At times a great many stupid people have a great deal of stupid money. This blind capital seeks for some one to devour it, and there is plethora. It finds some one, and there is speculation. It is devoured, and there is panic." Of course, Mr. Bagehot speaks of the great changes in prices, but we can readily reduce his statement to cover many of the smaller changes which occur intermediately.

Values are affected by more important matters—crop failures; disasters, such as the San Francisco earthquake; bad management; dishonesty, or the mistaken ventures of enthusiasts. We may feel quite safe in taking the stand that so far as crop failures are concerned we need have less apprehension from that trouble each year. The use of fertilizers, scientific farming, the government

reports, etc., all aid the farmer. It is quite improbable that we will witness a general crop failure at any time in the future.

Probably the one factor which is at present working most drastically against values is the high cost of living. I regret to state that figures produced by the United States government showing the movement of wages as compared with the advance in food products cannot be depended upon. Whether this is the result of politics or ignorance, I will not undertake to say, but whatever the cause may be, it appears that the government attempts to demonstrate that wages have advanced proportionately with the cost of living. There is an old saying that "figures cannot lie, but liars can figure." It is a very easy matter to take certain products which have actually declined in price, without properly weighting them, and strike an average which is entirely false so far as the actual movements of necessary commodities are concerned. It is also possible to take as a basis the wages which have risen the most rapidly, leaving out those which have not risen at all.

The Dun index numbers, which were suddenly stopped a short time ago for reasons which I presume are obvious to most observers, showed a very different state of affairs than that shown by the government. I talked recently with Professor Norton, of Yale, who is at present engaged with me in preparing an index number which we hope will be reliable, and he informed me that meats, since 1895, had risen ninety-five per cent., and vegetable foods eighty-five per cent. Of course, if we want to take the price of nutmegs, meats and vegetables, and add them together and then divide by three, we will have a grotesque result which would not at all represent the true state of affairs. That is what most of the compilers of index numbers are doing now.

I hear the statement on every hand that no one can really discover where the trouble is in this advanced cost of living. Most of us have the gold theory in our minds and attribute the advance in commodities to the increasing production of the yellow metal. Whatever the cause may be, the great question is: What is the cure and what is the final outcome? Personally I have an idea which I have not heard exploited, and that is that an equilibrium must be established in order to permit business enterprises which are not making a fair amount of money to have their share, and to take that share out of the pockets of those who are making an undue amount.

Mr. Selwyn-Brown, in a letter which he recently prepared for me, entitled "The Beneficiaries of Advancing Prices," finds, by rather elaborate calculations, that the farmer, of course meaning the owner of a well-managed farm, is making from fifteen to twenty per cent. on his capital invested, and that farm land has risen at the rate of six and seven-tenths per cent. per annum since 1900. This, of course, adds to the profits of the owner of the farm. In my opinion, it would simplify the problems both of transportation and wages if a more equable distribution were accomplished. The great trouble is that the farmer, who is making the most money, is the one who would object most strenuously to an advance in traffic rates. It is not the desire of railroad corporations to keep down the wages of employees. It is a matter of necessity. They cannot continue to pay higher wages for the cost of producing transportation without receiving higher prices for that product, and if freight rates were made more flexible there would be little trouble as far as wages are concerned.

Our miserable currency system is another thing which is liable to seriously affect values unless it is remedied. There are many theories on this subject. It has been talked over for years by every student, big or little, and each one has his own plan, not one of which appears to be reasonable. Contrasting our currency system with the methods employed in other countries, its rigidity appears outlandish. First we get conflagration, as in 1907; then inundation, as in 1908.

Adverse legislation is given as one of the particular reasons for declines in the values of securities, but this in my opinion, is absurd. There is no intention on the part of serious-minded legislators to do anything but remedy evil. The very methods which are criticized are the methods which have reduced speculation and investment to more or less of a science. The only kind of paternalism which is dangerous is ignorant paternalism. Even if some foolish legislator, backed up by a lot of foolish constituents, manages to get through a foolish law, such a law never endures.

Having mentioned these particular influences affecting prices and values, I will touch briefly on the present outlook as to the security movements. In January of this year I asked a number of gentlemen, who are competent to pass opinions on the subject, to set down in parallel columns the good and bad factors bearing on

the situation. Charles A. Conant finds on the credit side of his ledger: The soundness of American enterprises; the productive power of the country; judicial temper and open-mindedness of the national administration; and on the debit side: High prices of commodities; manipulation of stock exchange, and the proposed restrictions on investments.

William C. Cornwall considers the good factors: The new wealth from the agricultural and mineral crops; the sound credit conditions; the capability of the country to greatly expand business under favorable conditions. He considers the bad features as: Uncertainty as to Supreme Court decisions; proposed anti-trust legislation at Washington; probable reaction in trade; the result of the elections in England, leaving that country politically unsettled.

John Coulter put the good features as: Prospective ease in money; good railroad earnings; good crop prospects; business and trade expansion; elimination of vicious manipulation on the stock exchange; increased foreign and domestic investment in securities; continued economies in corporate operation; the regulation of pool operations; and among the bad features he points to the attitude of the national administration toward corporations; possible tight money later; coming court decisions; labor agitation; our extensive imports, and fear.

R. E. Edmondson, editor of the New York *Financial Bulletin*, among the good factors, points to the excellent crop conditions and prospects; favorable trade outlook; easier money; the probability of railroad rates advancing in the near future. On the other side of the question he mentions the high prices of commodities, the adverse legislation at Washington; labor troubles.

Frank Fayant refers to Mr. Taft's policies, and the fear of these policies, in the following words: "To be frightened by Mr. Taft's policies is hysteria. The President's attitude toward the business of the country has been repeatedly and emphatically stated by him in words that no one can misunderstand. Mr. Taft is a believer in the American big-business idea, and he believes that everyday wrongdoing should be punished. Mr. Taft's corporation policy, while perhaps displeasing to a few eminent financiers, will strengthen the American investment market, both here and abroad."

Bert C. Forbes, of the New York *Journal of Commerce*, points to the world-wide ease in money; unparalleled acreage to be culti-

vated this year; harmony among our banking powers, the prospective advent of the farmer as an investor when new issues are regulated. Mr. Forbes also speaks of the housecleaning by the stock exchange; the universal peace among leading powers; the readjustment of securities to attractive income level, as good factors. On the other side of the question he selects the high cost of living; hostility to Wall Street; extensive demands for new capital, here and abroad.

Byron W. Holt places under the head of good factors: The unparalleled gold output, amounting to $450,000,000 a year, thus increasing our credit power by fully $1,200,000,000 a year, and resulting in rapidly rising prices of commodities and property. Mr. Holt also points to the great prosperity of land-owning farmers, due to high prices for both products and farm lands; the excellent outlook for winter wheat; the moderate rates for money; the settlement of the English elections. On the side of bad factors he notes, first, high and rapidly rising prices; probability of higher interest rates; strike and labor troubles; general discontent and demand for investigation and reform.

Maurice L. Muhleman, ex-assistant treasurer of the United States, points to the international peace; friendly attitude toward American securities; continuously large gold output; confidence in President Taft's conservatism; sound condition of banks; the ease in rates for money, as the most prominent of the good factors. The deterrent factors he classifies as being the economic aspect of the British political situation; the serious losses by floods in France; the high cost of living; the need of the government to borrow large sums to make up for deficits in its revenue.

Arthur Selwyn-Brown points to the prospects of world-wide peace; prosperous commercial outlook for leading industrial nations; large harvests recently garnered in the world; unusually large volumes of savings in the banks. As adverse factors he mentions the discontent among the labor classes; increase in commodity prices, and our declining exports.

Carl Snyder, author of "American Railways as Investments," takes a rather blue view of the situation, and, to quote his own words: "Precisely, because the business outlook is good, it would seem as if the reverse must prove true. Otherwise prices would tend steadily downward. First, because the long rise invariably precedes the full recovery, and because securities in the last half of

last year were very high. They are still high. Many of the poorer securities are selling for at least twice any actual, potential or prospective value they may possess." Mr. Snyder modifies his views somewhat by stating that in the former cycle there was no fundamental force like the present unparalleled gold production with an attendant depreciation of its purchasing power. This, of course, makes for higher prices. "Conceivably, for this reason, we may still see slightly higher prices than in 1906 before we reach the long downward turn. The prospect for this, however, is distinctly less favorable now than six months ago."

S. V. White takes an optimistic stand, stating that all conditions of business and crops throughout the country are normally good, and there is no hysteria among the inhabitants of the country as distinguished from Wall Street and Wall Street markets. Mr. White emphasizes his remarks by saying, "This is America and the twentieth century." Under the head of bad factors Mr. White points out the unrest of the people over the price of foods.

Many other views were given, but they were practically the same as those already offered, and to refer to them would result in unnecessary reiteration. It may be stated that the consensus of opinion is largely favorable to higher security prices in good times. One thing in particular characterized almost every report, and that was the mention of the high cost of living as a bad factor. And there we may look, as has already been stated, for the most important problem we have to face.

From the facts that I have at my command, and after a careful investigation of the underlying business situation, I see no occasion for alarm. I believe that the trouble we are now encountering will be rapidly adjusted and a correct equilibrium established, without anything revolutionary in the re-establishment. We may have trouble now and then, but that is to be expected from one year to another. We have always had it in the past.

George Paish, editor of the London *Statist*, and James Wright, of Mackay, Irons & Co., have both been in this country recently on a particular errand, to examine conditions and the prospects of our securities and security prices. I have had the pleasure of talking with both these gentlemen, and they feel very cheerful, and have so reported to their European followers. Mr. Paish shows, from very careful calculations, that the investments in American

railroad securities alone, by Europe, amount to over £600,000,000. This is the greatest investment they have in any country, or any two countries, which is an evidence that they have confidence in the future of America.

Almost every writer who follows the cycle theory is beginning to tell us now that we will have a panic in 1912-13. The very fact that there is such a consensus of opinion on that subject leads me to believe that we may escape the trouble. If our barometers are correct, we have plenty of time tc reef our sails, and escape damage from the coming storm. Personally I held the same opinion a few months ago, that we would have trouble in 1912-13, but have modified my views as stated above. Panics usually come upon us as surprises, and seldom come when they are widely predicted.

It goes without saying that the great and all-important factor affecting security values favorably is accretion. Improved methods of handling business, better management because of greater experience, and, most particularly, the expansion of traffic because of increased population, are the things to which we must look for future values and prices. Fifteen years ago Atchison common sold at $3.50 a share; Baltimore & Ohio at $32.50 a share; Canadian Pacific at $33; Chicago, Milwaukee & St. Paul at $53.87 a share; Louisville & Nashville at $39; Northern Pacific at $2.50; Norfolk & Western at $1.25; Reading at $16.75; Southern Pacific at $16.34; Union Pacific at $4 a share, and so on through a long list of securities. The figures I have given are extreme low points, and to escape the accusation of unfairness I will give the figures on the same stocks ten years ago:

In 1900, Atchison sold at about $19; Baltimore & Ohio at about $55; Canadian Pacific at about $85; Chicago, Milwaukee & St. Paul, $108; Louisville & Nashville at about $68; Northern Pacific at about $46; Norfolk & Western at about $23; Reading at about $15; Southern Pacific at about $30, and Union Pacific at about $45. The intending purchaser of any or all of the securities mentioned could have accomplished little by a resort to mere statistical showings. When these low prices prevailed, the synthetic view and the proper judging of the future was infinitely more important than the analytic view or the scrutiny of statistical exhibits—so it will continue for many years to come.

ECONOMIC CRISES AND STOCK SECURITY VALUES

By Arthur Selwyn-Brown, M.A., Ph.D.,
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The developments of modern science have conclusively shown that changes in nature are not brought about in direct, but always in indirect ways. All progress, and consequently, all motion, follows a zigzag or cyclic path, rather than a straight one. In other words, the trial and error method, that is followed alike by nature and by man in the determination of changes, results in a complex of cyclic or periodic phenomena. Herbert Spencer was one of the first to emphasize the fact, that whenever there is a conflict of forces that are not in equilibrium, there will be rhythmic action engendered. But if the antagonistic forces are balanced at any one point, rest will be induced. A perfect balance of forces, or rest, hardly ever exists. Evolutionary developments are rhythmical, and, consequently, when mapped present spiral or periodic effects. There are always noticed advances and retardations, action and reaction, from which progressive epochs are differential resultants. A study of these phenomena enabled Spencer[1] to describe the law of organic and inorganic evolution as the "change from an indefinite, incoherent homogeneity, to a definite, coherent heterogeneity, through continuous differentiations and integrations." If we accept the evolutionary theory and its corollary that life is but a form, or a stage, of motion, we will have little difficulty in understanding the periodicity and other phenomena of commercial crises. These crises are the resultants of mental disturbances of social bodies, either local, national, or international. They affect a limited area like a town or nation, or are world-wide in their manifestations. In their larger aspects they are of celestial origin and accompany climatic changes. A study of their economic aspects, however, does not necessitate any reference to extra-mundane causes.

Crises are essentially psychological phenomena. They result from fear, and mark the ends of reactions from periods of inflated prices and credits. They indicate the low swings of the evolutionary

[1] Herbert Spencer, "First Principles," Chapter XI.

pendulum during periods of price readjustment. Commercial crises are usually divided into two classes, each of which is again subdivided. We may generally distinguish crises as belonging to one or other of the following divisions, although the dividing lines are not always clearly marked:

1. *Currency crises.*
   (a) Congestion of the circulating medium.
   (b) Over-issue of paper currency.
2. *Capital crises.*
   (a) Over-speculation.
   (b) Over-production and stocking.

The main divisions are also commonly distinguished as financial and over-production crises. The subdivisions mark the predominant features of each crisis. When there is a financial crisis with strong evidence of an extensive circulation of bank notes, the crisis will be best classed as an over-paper issue financial crisis. When over-speculation, or over-production, are the predominant features of a panic, the crisis will be classed in a suitable subdivision of the second division. Each of the subdivided crises exhibits characteristics shared by all crises and some that are peculiar to its own class.

During the interval between one commercial crisis and the next one the following cycle of business phases may be noticed: Depression, improvement, rapid improvement, general prosperity, excitement, over-trading, excessive speculation and company promotion, fear and apprehension, pressure to sell at lower rates, dullness, panic, and general business depression. These phases correspond with similar psychological features in public sentiment.

Man is a social being. He loves company. Sociologists distinguish four types of men: The austere, forceful, convivial, the rationally conscientious. Whenever a majority of any community is classifiable under one of these divisions, we have an austere people; a forceful, active people; a convivial people, fond of good living; or a conservative people. Most communities belong to the third type, and the people are easy-going and prone to suggestion and imitation. In all communities there are numbers of people who are naturally pessimistic, but who love to follow optimists. Now, crowd leaders, to be successful, must be active, forward, hopeful men. They must be optimists. The civilization of the

world has been and must continue to be developed and spread by optimistic and indomitable individuals. The pessimist rarely benefits mankind. When he does confer a benefit he usually does so in the form of criticism.

The chronic pessimist is usually a mere dreamer or a nihilist or other destructor. His morbidity prevents him being a good constructor. The pioneers and leaders of business are strong optimists. They gather followers through suggestion, sympathy, and imitation. Their hopefulness leads to activity and their activity commands success. Their success is envied by others and their work and operations are imitated. They infect all beholders with their hopeful sentiments. Most men are moved more by sentiment than by judgment, by imitation rather than by thinking. Consequently impression and fascination always tend to inspire imitation. In speaking of public opinion Holtzendorff well says that, "The public opinion of the masses is not as a rule the result of careful investigation and sifting of facts. The ideas that little by little, as occasions arise, establish themselves in public opinion are produced by a great multitude of forces that are themselves the resultants of other conflicting forces. The social rôle of the instinct for imitation is important, not only in regulating the external activities of society, the forms of social intercourse, and clothing, but also its opinions and beliefs. The majority of men in society readily imbibe and absorb their opinions from whatever sources most frequently and emphatically express them." [2]

Whenever the public opinion leaders in any given society become so active and hopeful as to compel all the members of their community to imitate their example, the businesses and industries of that community will reflect such psychological phenomena. There will be a great amount of trading and speculation while prices and trade records will soar to higher levels. Periods of inflation will be induced. Merchants will over-stock, manufacturers will over-produce, investors will over-speculate, and bankers will over-extend credit. But in time momentum will be lost. There will be a temporary dullness in trade. Later, some of the financial leaders in the community will observe that the commercial pendulum has reached its utmost limit in the upward beat, and is about to revert to a downward beat. They will then discount the future course

[2] Franz Holtzendorff, Oeffentliche Meinung, page 93.

of events by selling their goods or, when possible, selling short, or for future delivery. These transactions will as time progresses be followed by others, until sufficient momentum is established to give the swing of trade a pronounced downward trend. But a large proportion of men at first fight against changed conditions. They suffer losses, but hold on to their remaining stocks, hoping for business to improve again. Finally, prices decrease so much that panic seizes them and they run together and sacrifice their goods at whatever prices offer. Such activity usually precipitates a general commercial and financial panic. This explains how it comes about that every panic is preceded by some years of the most intense business activity and speculation, and is followed by periods of commercial stagnation and restricted credits. Then the cycle is repeated again endlessly. When the progress of the world over any long interval of time is plotted, the resulting curve will be found to present many irregular undulations and up-and-down movements indicating periods of action and reaction, of optimism and pessimism. But the movement will be a climbing one in the nature of a spiral. This is in accordance with the law of advancement in evolution that is generally described as the universal struggle toward perfection.

Commercial crises have been experienced at comparatively regular periods since early historic times. The most noteworthy panics in recent times were experienced in Europe in 1701, 1711, 1721, 1731, 1742, 1752, 1763, 1773, 1783, 1793, 1804, 1815, 1825, 1837, 1847, 1857, 1866, 1873, 1878, and 1890. In the United States, the most important panics occurred in 1812, 1818, 1825, 1837, 1847, 1857, 1869, 1873, 1877, 1884, 1890, 1893, 1903, and 1907.

Various theories have been elaborated to explain the periodicity of commercial crises and panics. The two principal ones are those of J. S. Mill and W. S. Jevons. Mill's theory is that after the reverses in business caused by a crisis have warned commercial communities of the dangers arising from extravagance and unsound business methods, it requires a comparatively definite period for the losses to be made good, and the memory of their harmfulness to be modified. Mill held the opinion that the changes in mental attitudes of commercial communities toward business conditions and credit methods that occur in the interval between a crisis and the following boom period require a comparatively definite interval of

time for their accomplishments. It is a psychological phenomenon and can be measured by psychological methods.

Jevons attempted, with doubtful success, to connect the periodicity of market phenomena with the periodicity of sunspots. He was of opinion that the periodical upheavals in the sun's atmosphere signified extraordinary celestial heat changes which caused remarkable climatic disturbances on the earth, that, in turn, modified the productiveness of agriculture and the pastoral industries on which so much of the world's trade is based.

Strong objections can be raised to both Mill's and Jevons's theories. Neither is true. But each contains elements of the truth. Crises and booms mark the excesses of social communities in their financial and commercial transactions. They are the objective phenomena of psychological changes and correspond to the collective feelings of exhilaration and depression, optimism and despondency, freshness and fatigue of communities. Obviously no theory can be framed to measure accurately the interval between phenomena dependent upon such elusive matters as psychic states and sociological conditions of large communities. These are themselves modified by a variety of circumstances and do not recur at any regular interval. Notwithstanding this, however, crises and booms are always accompanied by certain well-defined financial and commercial phenomena, and by studying these their approaches can usually be ascertained well beforehand with a good degree of accuracy.

Successful financial operations are invariably based upon accurate forecasts of the business outlook of the future. The truth of this is acknowledged by the writers on the stock markets who assert that prices always discount the future. The price fluctuations on all markets reflect business conditions, but, for general purposes, the variations on the stock exchanges, both in prices and transactions in stocks and bonds, afford the most sensitive and accurate barometers of commercial tendencies. Operations on the stock markets are very intimately connected with banking and commerce. The leading investors on the stock exchanges are among the largest bankers, corporation directors, and business men in the country. These men are in close touch with developments, not only with every portion of the country, but with Europe also. Through their agents and information bureaus, they are able to

watch every small change in corporation earnings and expenditures, crop values and prospects, political conditions, the state of monetary supply, prospects of tariff changes, domestic and foreign trade, commercial credit and other factors contributing to business stability. They are the first to see the cloud specks in the financial horizon that are the harbingers of the causes of the great cyclic price swings moving in unison with the long cycles in trade and industry between boom and panic periods. They are the great discounters of the future, and their operations in lowering the prices of their goods for sale, restricting their credits, calling their loans, selling out their stock securities, and restricting their business operations in times of general optimism, and their reversal of these operations in times of panic and depression, assist the reversal of the swing of the cyclic pendulum and contribute to the reversal of price changing tendencies.

Confining attention to the effects of commercial crises on stock security prices, it should be first noted that a distinction should be made between price and value. The price of a stock is the money it will sell for, or can be bought for, at any particular time. It is generally influenced by the demand and supply, or commercial conditions, existing when a specific quotation is made. Value, on the other hand, relates to the quality of the stock for income-producing purposes. It depends on the substantialness of the security, its future prospects, class of business done by the corporation, character of the management, and the rate of return as compared with the average yield of high-class securities. The intrinsic value and market price of any particular stock exchange security are often very far apart, and it is upon a proper recognition of this that many successful financial men and bankers found their wealth. It should be borne in mind, also, that stock exchange panics do not cause commercial crises as is popularly assumed. All such crises are accompanied by depressed stock prices; but the depreciation in values is a concomitant of crises, not a cause. The fall in stock prices on the New York stock exchange in October, 1907, commenced a few days before the suspension of payments by the banks, but did not cause such suspensions. The crisis was largely brought on by over-speculation, credit abuses, and currency inflations in 1905 and 1906. The panics on the stock exchanges of the United States in October and November, 1907, indicated the extremities

of the downward movement of the price pendulum from its extreme upward movements in September and October, 1906.

Business progresses in regular cycles that run in the following order: (1) Trade and financial depression, money in plentiful supply at low rates; (2) increased commercial activities, money in better demand; (3) money surpluses commencing to diminish; a more optimistic sentiment prevails in business circles, new commercial undertakings are planned; (4) labor is in good demand, all the manufacturing and transportation companies report their plants are in full operation, there is a good demand for loans at rising rates, the proportion of banking reserve to liabilities diminishes rapidly; (5) there is a mania for speculation in lands and stocks, much public and private extravagance, the banks are over-extended and in a very weakened condition, company promotion is rampant; (6) bankers become apprehensive, call loans, restrict credit, realize on securities, and call a halt in business expansion; (7) there is a period of dullness, then a panic, followed by a depression. The cycle is then repeated.

The passage of commercial conditions from a crisis and panic to the top of its succeeding boom is measured by statistics relating to: (1) *Banking*, showing proportion of reserve to liabilities, nature of transactions, number of transactions, circulation, loans, clearings, and money rates; (2) *customs returns*, showing imports and exports; (3) *agricultural returns*, showing area under crops and estimated yields; (4) *wholesale business*, showing amount of trade done by leading wholesale and manufacturing firms, particularly those of the textile, woolen and hardware houses. Their transactions indicate views of the business outlook for the immediate future held by retail firms throughout the country; (5) *building and real estate activities;* these always give greater figures nearer the top of a boom; (6) *commercial credit*, as shown by the number of cases of insolvency and bankruptcy, and sums involved; (7) *labor conditions*, showing unemployment and emigration movements; (8) *railroad conditions*, particularly traffic returns, earnings, dividends, number of idle cars, condition of tracks and rolling stock; (9) *commodity price movements*, as shown by index numbers; (10) *stock exchange transactions*, including the number of stocks and bonds sold daily, average price changes, and new securities listed; (11) *foreign money rates and business returns.*

The development of international commerce in recent years has been enormous. In consequence of this, the commercial conditions in each country are reflected in others in a greater or less degree, depending on the relationship of the commercial communities of each. All large merchants and investors, for this reason, keep well posted in foreign news.

Speculation in all forms is the result of foresight, and early appreciation of coming changes. Successful speculation is rarely the result of chance. It is generally based on a thorough knowledge of financial and commercial conditions. The financiers who manage large campaigns on the stock markets plan their campaigns as carefully as generals of armies before engaging in a war, or of railroad corporations before committing themselves to the building of expensive engineering works. The advice of prominent bankers and merchants is always sought. The fullest statistical data relating to the subjects given above are collected and tabulated by trained statisticians. Upon a study of these data stock market operations are planned. When fundamental business conditions are healthy, stocks and bonds are purchased; when conditions are unsound, stocks are sold short in anticipation of lower prices. It is in consequence of the great amount of study the leading financial authorities give to fundamental business transactions and the unerring manner in which their conclusions are reflected upon the world's stock markets, that the stock markets have become such sensitive and accurate barometers of commercial and financial conditions. It is also through a lack of understanding of these intimate relations between stock prices and the opinions of commercial leaders of coming business changes, and of the tendency of stock movements to discount the future, that the public forms wrong conclusions regarding the importance and value of stock exchange operations. This popular misunderstanding of the causes of the sensitiveness of stock exchange movements, also, is responsible for the popular illusion that leads to the belief that rapid and extensive variations in stock prices induce commercial and financial booms and crises.

When the average prices of representative stocks actively traded in on the stock exchange are taken for a series of years and plotted, it will be noticed that the curves advance and decline

in a comparatively symmetrical manner. Usually each year a decline will be observed in January or February. This will be followed by a strong spring rise, and a fall in October, November or December. The spring rise anticipates the crop returns, and the strength of the rise is dependent upon general commercial, financial and climatic conditions, and the outlook and value of the crops. When the harvests are good, and money is in good supply, the spring rise in stock prices is often continued into the summer. But if the crops are poor, and money rates are high, the stock markets react in summer.

In the fall months, money is required by the agriculturists in large quantities for wages and other expenses. Money rates are usually high at this time. A certain number of security holders are always compelled to realize on them whenever money is in short supply. This selling lowers prices, and induces what are known as the fall market reactions. These price movements are greater in stocks than in bonds. It is largely through money movements from the cities to the agricultural districts causing monetary stringencies that the greatest declines and panics on the stock exchanges occur in the early summer or late fall months. Favorable crop outlooks generally cause the greatest activity on the stock exchanges, and booms in business, to occur on the top of a spring rise in prices. When prices have steadily risen for several years, and in spring, transactions on the stock exchanges reach extraordinary figures, banking returns show greatly extended credits and poor reserves, foreign imports are much greater than exports, and investors exhibit a speculative frenzy; there is a strong probability that the upward swing of the price pendulum is culminating, and that a sharp decline of from fifteen to twenty per cent. in stock prices is at hand. The main trend of prices will continue downward, excepting for repeated rallies, until in a year or two a panic will ensue that will cause prices to fall so low that new investment buying on a large scale will be induced by the bargains offered. This will stop the downward momentum of the pendulum and cause it to change its beat. Such great stock exchange panics generally accompany general commercial crises. There is usually no exact correspondence between the average rise and fall between a series of cycles in trade. The low prices of

stocks during commercial crises have a higher average value, as a rule, than those of preceding crises. The same is true of the average of prices in boom periods. There is everywhere a tendency for prices to seek higher levels. All prices rise proportionately with the advancement of civilization and social well-being, and in correspondence with the growth of wealth.

RAILROAD STOCKS AS INVESTMENTS

By Carl Snyder,
Author of "American Railways as Investments," New York.

The ideal investment, it is needless to say, is that which represents a maximum return with a minimum of risk. This, I believe, is at the present time, and probably will be for some time to come, represented by stocks in the solider railway companies. It is true that industrial and some other securities yield, on the average, a higher interest return, but this, as is usually true, is offset by a correspondingly greater risk. This is not losing sight of the fact that in recent times some industrial stocks, especially the preferred stocks in some of the larger corporations, have offered a return both high and uninterrupted. But it is to be recalled that even the best of the industrials are of comparatively recent origin and that the larger part of the industrial securities now on the market have come into existence in a period which has been for this country, and for the world generally, one of almost uninterrupted prosperity. A *continuum* of such prosperity it would be folly to expect. In a large way the seven fat and the seven lean years have alternated since the beginning of trade. The most of our industrials have yet to undergo a prolonged period of depression, such as this country saw from 1893 to 1897 and from 1873 to 1877.

On the other hand, some of our larger railway systems have passed through both of these periods unscathed, and at least one of these systems, the Pennsylvania, has been continuously paying dividends on its stock for upward of sixty years. In the depression of 1893-97 nearly one-third of the railway mileage of the country passed into the hands of the receivers, including great systems like the Reading, the Baltimore & Ohio, Erie, Southern Railway (Richmond Terminal), the Wabash, Union Pacific, Northern Pacific and the Atchison. This was an appalling list of failures, and should not lightly be forgotten. But it is to be remarked that the depression of 1893 followed the great era of rail-

road expansion in America, which came in a period of long and unbounded prosperity, almost identical to that which we have witnessed within the last twelve or thirteen years. It was almost inevitable that such a period must have involved overbuilding and expansion beyond the resources of the country.

It is scarcely probable that the next period of depression will involve our railways to an equal extent. Practically without exception these failures represented a great scandal, a history of disgraceful stock watering or stock jobbing, and a shame to American railroading. Four of these failures were, in fact, due to the evil influence and criminal practices of one man. Our railway managers have learned well in the dear school of experience, and it is a notable fact that several of these systems, which a few years ago were in the hands of receivers, are to-day among the solidest and best-managed properties in the country and better able than many others to weather a storm.

In the terse language of the street, our railways "have had theirs." Our industrials have not. This is an item to consider.

Moreover, the country has now grown up to its railways, so that in the past ten years there has been a comparatively slight expansion of actual mileage, and especially in the West where the last depression was most severely felt, business and trade are in a far better position than twenty years ago. Still further, as will be seen, present economic tendencies are in the direction of strengthening precisely the section which then presented the greatest weakness. It seems altogether probable, so far as it is humanly possible to forecast the future, that our railways present on the whole the safest of the larger fields of investment.

It is to be noted, also, that railway stocks have tended, especially within the past ten years, to pass more into the hands of the smaller investors. A rather unsatisfactory census of railway shareholders made a few years ago showed between three and four hundred thousand names. The Pennsylvania Railroad, for example, alone has upward of fifty or sixty thousand stockholders, nearly one-half of whom are women. This census probably by no means represented the actual figures, many of the shares being held by brokers or trustees for a number of individuals. It is likely that, all told, the railways belong to upward of half a million active owners, and if to this be added the number of individual bond-

holders, this figure would probably lie between one and two millions.

This is a remarkable showing, and with this growth has come a far larger sense of responsibility on the part of railway managers toward the investing public. Dishonesty has been largely, though not wholly, eliminated, and our railways are, for at least the larger part, exceptionally well and conservatively managed properties. So great is the present volume of railway securities, amounting now to fourteen or fifteen billions, that it would be a national menace as well as a national disgrace if the facts were other than as here represented.

Accepting, then, that railway shares present a relatively high degree of security, we may ask as to the return. Nominally the return is not high. Railway shares fluctuate widely in value, but taken year in and year out it may be said that the total of railway shares now on the market sell for somewhere near their nominal, or par, value. The average return on the better class of railway bonds is not much over 4 per cent., and the average dividend on the shares is rather less than this.

But this situation is brought about by the fact that a considerable proportion of the shares bears no dividends, yet these non-dividend shares command ordinarily an absurd and usually entirely fictitious price, ranging from twenty to fifty dollars per share and even more. Actually the return on solid and seasoned dividend-paying shares has ranged within the last few years around an average of from 4½ to 5 per cent. In the panic of 1907 the average dividend on twenty standard shares was a little over 7 per cent. When stocks rule very high, as in 1906, this average may fall considerably below 4 per cent.

This wide variation in actual return, and in the price of securities, was unaccompanied by any corresponding variation in the actual value of the properties. The panic of 1907 was not followed by prolonged depression; it seemed rather a financial and banking spasm than a broad economic crisis, and the recovery therefrom was correspondingly rapid. Only a few badly managed and badly financed properties actually went into the hands of the sheriff, and comparatively few dividends had to be reduced. Some of the reductions, likewise, represented rather commendable caution than actual necessity. It is precisely because of these wide fluctua-

tions, which are recurrent and in a vague way periodic, that the railway shares in their present solid position represent an especially inviting field to those who are willing to give to their investing a little careful consideration and forethought.

Below is given a list of a dozen of the best railway shares with their wider fluctuations within the past ten years. Beginning from a relatively low level it will be noted that within this period there have been three broad "swings": a noteworthy rise extending into 1902, followed by a correspondingly heavy fall; then another prolonged rise to near the close of 1906, followed by another slump culminating in the late panic; and, finally, a third rise extending to the fall of 1909. Individually, the variations in price were as follows:

	Low. 1900.	High. 1902.	Low. 1903-4.	High. 1905-6.	Low. 1907-8.	High. 1909.
N. Y. & New Haven...	207	255	185	216	127	174
New York Central	125	168	112	167	89	147
Pennsylvania	124	170	110	148	103	151
Reading	15	78	37	164	70	173
Lackawanna	171	297	230	560	369	680
C. & N. W............	150	271	153	249	[1]126	198
St. Paul	108	198	133	199	[1]93	165
Illinois Central	110	173	125	184	116	162
Louis. & Nash.........	68	159	95	157	85	162
Atchison	18	96	54	110	66	125
Union Pacific	44	133	65	195	100	219
Great Northern	144	203	160	348	[1]107	157
Average	107	191	121	224	122	209

It will be seen that these twelve standard securities rose in two years from an average value of $107 per share to $191 per share, then declined within a year to an average of $121 per share; then rose again in eighteen months to almost double this figure; that they declined in the panic to $122 per share and then recovered within less than two years to an average of $209 per share.

Taken as a whole, there was throughout these ten years a tendency toward a steady increase in dividends, which was further enhanced by the frequent issue of "rights" to the purchase of stock at much below the market figure. It is evident, then, that

[1]Ex. valuable "rights."

in spite of these wide fluctuations even the more careless of investors, buying, as is the habit of careless investors, when prices have risen and are generally high and enthusiasm at a maximum, would have suffered no very serious loss. On the contrary, they would have done fairly well. To the more cool-headed investor who abstained from purchasing when the outlook was most roseate and enthusiasm rife, and who had the courage, for it takes courage, to buy when the sky was blackest and the nerves of the strongest were shaken, these very fluctuations offered a great opportunity. Had he, further, pursued a consistent policy of selling out his stocks after a long rise, and repurchased them only after a long fall, his reward would have been large.

Simple as such a plan may appear, it is evident that there are few who are able to follow it. If there were many the opportunity would not exist. In point of fact, it seems human nature to believe that when stocks have gone down they will "go further," and, correspondingly, that when they have had a great rise they will "go higher." If it were not for this human infirmity Wall Street would not bear the evil reputation that in many quarters it does and parenthetically, it would scarcely exist. The business of "Wall Street," that is, of the men who make a business of buying and selling stocks, is to get them as cheaply as possible and market them at the highest figure obtainable. It is a common impression that these "kings of Wall Street" pile up in this process enormous fortunes and that the toll they thus exact is heavy. Neither idea is particularly true. The number of fortunes that have been made solely or chiefly through speculation in Wall Street is amazingly small. These men, whose names are fairly well known, often make enormous winnings, but they also endure heavy losses. They are gamblers, and not merchants.

Another prevalent idea is that the rise and fall of Wall Street prices is fairly regular. The figures given above, for the last ten years, would readily give support to this belief. In reality it is quite unfounded. A still more inveterate notion is that the "bull," or buyer for the rise, always has the best of it—that is, that the general tendency of prices through a long period is to higher and higher levels.

There is absolutely nothing in the course of stock prices within the last forty years to sustain this view. But few of the stocks

in the current lists go much back of this, but this was probably equally true in the previous forty years.

It will be well for the investor to fix the facts firmly in his mind. Since 1870 the United States have enjoyed a period uninterrupted by any serious disturbing influences, like the Civil War. Beginning, then, from this time, there have been one short and one very long interval of rising prices; one short and one very long period of falling prices. Following the outburst of activity and speculation at the close of the Civil War, prices in 1870 were at a relatively high level. There followed seven years of drastic decline, culminating, not in the panic of 1873, but four years later. Then came, from 1877 to 1881, the most remarkable rise in values which this country ever saw. In this brief time Dun's standard list of sixty rails showed a rise of over 400 per cent. on the average. From the high level reached in 1881 stocks underwent a long, irregular decline, reaching bottom in the panic of 1893, and then, after a brief rebound, falling again to the same levels in 1896—that is, through a period of fifteen years. They did not again reach the high levels of 1881 until an even twenty years thereafter. Then from 1896 ensued the long rise which reached its highest point in 1906, though on the rebound from the recent panic stocks reached in August, 1909, very near the same high level, some, as is always the case, going much higher than in 1906, while others had nothing like such a rise. Counting to the latter date, the last period of rising and high prices has extended over thirteen years.

It will be seen, therefore, that the periods of rise and the periods of fall were about equally balanced, and that in point of time, the chronic "bull" and the chronic "bear" would have fared about equally well. The lesson is fairly obvious.

The most interesting thing about this showing is that the shorter but heaviest rise followed the shorter but heaviest fall, and the long fall was followed by a rising period of nearly equal length. And just as the fall from 1881 to 1896 was nothing like so heavy as from 1870 to 1877, so the rise from 1896 to 1909 was nothing like so heavy as the rise from 1877 to 1881—roughly, about 200 per cent., as against 400 per cent. in 1881.

Definitively, then, there is no such thing as a "cycle" in stock prices, no way of mechanically forecasting the future. The "twenty-year period" of business activity marked by the prolonged

disturbances of 1837 and 1857 was rudely broken by the panic of 1873. It seemed re-established in the period culminating in the panic of 1893, only to be broken again by the panic of 1907.

The intelligent investor, looking not only to fixed and nominal return from dividends, but likewise toward possible profits from buying when stocks have had a prolonged fall and selling them again after a prolonged rise, will study, rather, the underlying conditions. These are by no means easy to discern, but in looking back over the period under view it will be found that there was at least one factor so prominent that it might almost be called predominating. That is the course of commodity prices. Following the high prices which obtained after the Civil War, which reached their apex in about 1866, there was a long and violent fall extending to about 1877, then an equally violent rebound running into the early eighties, but very short-lived. From the end of 1882 to the end of 1896 commodity prices showed an almost uninterrupted fall, which was especially violent in the eight years following 1888. Then came an equally sharp rebound to about 1902, and it has since continued, though very slowly, upward. It is extremely instructive to note that, in a broad way, prices of standard rails tended to follow much the same course.

If now we look into the fundamental conditions determining the cost of commodity prices, we shall note that, broadly, these fluctuations were world-wide, and, roughly speaking, this can only reflect changes in the relative volume of the world's money. The quantity theory of money is not to be taken without reserve, but it is certainly very striking that in the period following the Civil War the nations tended more and more toward the adoption of a gold standard, while the world's production of gold tended rather to decline. A general appreciation of the exchange value of gold seemed almost inevitable. Then, beginning in the early nineties, while few new nations were added to the gold standard users, the production of gold began to rise by leaps and bounds. From an average production of not much over a hundred millions per year it has risen to well over $400,000,000 in the last three or four years.

The result has been an increase in the known and visible stock of the world's gold money (though by no means of the world's currency as a whole) by at least 50 or 60 per cent. in ten or twelve years. With no very marked increase in the demand, there has

been an enormous increase in the supply. It seems almost inevitable then that the exchange value of gold should fall, and, consequently, that the nominal price of commodities should rise.

It would be absurd to consider this factor alone in the future of commodity prices, and hence on the theory here developed, of the prices of railway shares. But if the production of gold should continue in the same heavy volume, and, still more, if it should show a further increase, it seems almost inevitable that commodity prices would rise further and hence, though probably not in the same degree, that railway shares would tend to high prices.

It is further to be observed that commodity prices in the sixties continued to rise long after gold production had begun to fall sharply; and, correspondingly, commodity prices continued to fall in the early nineties after gold production had more than doubled. In other words, it seems as if the effect continues long after the cause has ceased to operate. It seems, then, as if we may fairly anticipate that commodity prices will continue to rise for a number of years, even though the production of gold should fall off. And on the same reasoning it seems as if we might expect that the prices of shares would, in the absence of any decisive change in conditions, likewise tend to maintain, or return to, high levels.

But if all this should prove true, it is very likely that share prices would continue to show something of the same violent fluctuations that they have in the last eight or ten years. This seems to follow inevitably from a rapidly augmenting and, at the same time, depreciating currency. A depreciating currency means a corresponding rise in the nominal value of all kinds of real property, which tends naturally to promote the gambling mania, and especially land speculation and the like. The result is land booms and wild building booms such as preceded the panic of 1907 and were again in full blast by the end of 1909. In other words, crises and panics tend to be violent and recurrent, but short-lived.

If, then, present underlying conditions should not vitally alter, the intelligent investor may buy stocks in full confidence after a violent fall, with the pretty certain assurance that we shall not, for a time at least, see a return of the prolonged depression in values such as was characteristic of the decades prior to the present. The prophets of an economic crisis in 1913 are of the machine

variety who seem to endeavor to pantagraph the future from the past.

On the other hand, if the reasoning here employed be sound, it seems likely that the intelligent investor may, after a long rise, part with his stocks at good profit in fair confidence that he will be able to get them back in a year or two at much lower levels.

What should he buy? The maximum of safety, it is hardly needful to remark, is in the standard dividend-paying rails. It is nevertheless a curious and somewhat discreditable fact that there is a far wider fluctuation, with an almost irreducible minimum, in the more worthless class of non-dividend common shares, like the common shares in fantastically over-capitalized companies such as the Erie, Southern Railway, Wabash, Rock Island and their like. What is still more curious is an almost greater element of safety. There seems to be among these "cats and dogs" almost a lower limit to their price. Even with the apparently certain prospect of a receivership in 1908, Erie common still sold for $12 a share. Of course, in actual receiverships this minimum may be very much reduced. But even within the year Erie common was selling for $36 per share—a rise of 200 per cent.

What is still more curious, these for the most part valueless securities may generally be purchased much nearer the bottom and sold much nearer the top than the high-priced dividend-payers. The reason for this is that in a long slump they continue their decline for some time after the high-priced rails have reached rock-bottom, and, conversely, they generally continue their rise for some time after the high-priced rails have reached their apex price. It used to be, indeed, a by-word that great activity in Erie after a long rise was a signal that the show was over.

The explanation for this paradoxical condition involves a curious bit of psychology. Apparently the first comers, when Wall Street drums are beating and its flags flying, is a fairly solid investment class, who, while they usually pay high prices for their purchases, take the stocks home and put them away. Following these will be a class of Doubting Thomases, most firmly convinced at the eleventh hour, but tending to confound cheapness with price per share. They will look askance at Union Pacific at $200 per share and paying 5 per cent. solidly at this figure, but they will pay $40 or $50 per share for another stock that is paying nothing and with

little prospects of ever paying anything, save in the minds of the boomers of the Street.

When now a stringency comes or fright ensues, the stocks for which there is always a market at some price are the high-priced rails, and it is these which are usually the first to be thrown overboard. A large operator who could not sell a large line of Southern Railway common without absolutely smashing the market in that stuff could probably sell twenty or forty times as much Union Pacific on a sacrifice of five or ten points. So it is that the low-priced stocks generally trail after the better class both in the rise and in the fall.

But even among the standard securities it will be noted that after a long fall some stocks will rise much higher and more rapidly than others. Thus, for example, in the recovery from the last panic Southern Pacific, Union Pacific, Atchison and Reading rose from 100 to 150 per cent., while solid, well-managed stocks like Northern Pacific, Great Northern, Pennsylvania and Chicago & Northwestern rose only about 50 or 60 per cent. It will be asked, how is one to discriminate?

Practically speaking, for the average individual there is no possible way. Values often have little weight. The percentage of rise and fall in a given stock depends largely on the activity and financial position of the people who are ordinarily its heaviest holders. Or, again, in the hands of a clever manipulator, a stock may be put through great paces, as recently in the rise of a well-known railway stock from a little over $20 per share following the panic to over $90 a share a year and a half later.

There is one admirable rule, and that is to put your eggs in as many baskets as possible. It is far better to have ten shares each in ten stocks than 100 shares in one stock. If the amount to be invested can be divided by twenty it is still better. Then if any "sky-rocketing" of a stock is to go on, one at least stands a chance of participating a little, while the element of risk from unexpected developments or disasters in a single property is correspondingly reduced.

Inside information is, as a rule, the most misleading that can be had, and is almost invariably distributed at the wrong time. There is one simple method of determining the general attitude of the managers of a property toward their own stock, and that is by

noting the percentage of gross earnings applied to maintenance. These figures are reported to the Interstate Commerce Commission and are printed from month to month by most of the financial journals.

For the rest, if the predominating influences which determine the general course of stock prices have here been correctly gauged, it follows that if we are to see a still further rise in commodity prices and a corresponding rise in the value of real property, in other words, a still further depreciation in the purchasing power of the dollar, the railway companies which will derive the most benefit will be those which have large outside possessions in farm lands, coal properties, timber, iron ore and the like. For this reason it seems almost a certainty that, other conditions being equal, stocks like the Canadian Pacific, Northern Pacific, Great Northern, Southern Pacific, Reading, Lackawanna, Lehigh and the like should in the next ten years undergo a much greater appreciation in price than those of companies doing a simple, common carrier business.

This suggestion should not, however, imply the purchase of these stocks at high prices, for there is no reason whatever to suppose that they should be any less subject to wide fluctuations than other stocks. On the contrary, precisely because their speculative possibilities are likely to attract purchasers, thus creating a broad market for the manipulators and professional boomers, they are likely to undergo perhaps even heavier slumps than stocks whose value is more easily calculable, and which therefore lend themselves less to rainbow prophecies.

ELECTRIC RAILWAY STOCKS

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The 1909 edition of "American Street Railway Investments" reports that the total amount of capital stock of electric railway companies outstanding then was $2,444,892,057; the funded debt, $2,112,244,086; a total of $4,557,136,143. By far the greater part of the stock—almost nine-tenths of it, in fact—is common stock.

It is impossible to obtain accurate information as to the total amount actually invested in construction and equipment. The item "cost of construction," as carried on the books and balance sheets, gives, in most cases, no idea whatever of the cash investment. Even the real cost of construction or cash investment is not a proper measure of stock values either present or future. It is merely a matter of academic interest. It would not show even the "physical valuation" now harped upon particularly in discussions of city lines, and still less would it show the "cost of duplication" or the "value as a going concern," the latter of which is, of course, the absolutely fundamental point. The intent of this article is to give merely the most important general tendencies affecting stock values of the different types of electric railways and likely to affect them in the future, treating of the history of the past investment and capitalization only as it may throw light upon the present and the future. Smaller details and statistics cannot, as a rule, be given in the limited space allowed, nor can application of the general principles and influences be made to individual properties.

City Lines

The capitalization of city street car lines is in large part the result of evolution, representing in most cities, in addition to cost of construction, the legitimate but enormous cost of substituting the cable for the horse car, and electricity for the cable; the replacement of 18-foot cars by others 25 feet, then 30, 40 and 50 feet in length, and these improvements in turn necessitating 60-

instead of 40-pound rails, and then rails of 80, 100, 120 and even 140 pounds, and similar rapid displacement of power-house machinery, often when still good. Such increases in capitalization represented the betterments needed for the service of the public, though now the demands for the reduction of dividends and interest charges to the basis of return on a "physical valuation" would reject them as illegitimate. Much of the capitalization was, of course, water, having been freely thrown in during various consolidations and reorganizations, and making still heavier the burden of fixed charges and dividends.

It was thought by many that the steady growth of the cities and the natural proportionately greater increase in rides per capita, together with the marked economies due to the physical improvements and consolidations, would enable the companies to meet readily the increased fixed charges and to continue and even to increase the dividends.

These high hopes, however, have not in the main been realized, as an examination of the market quotations of the stock will reveal. In many cases, in fact, these have suffered severe declines from the figures established seven or eight years ago, when hopes were high and speculation rife.

For example, comparing the quotations of 1902 with those of 1909, we find that the Boston Elevated, with a continuous dividend of 6 per cent., has shown some decline, the high for 1902 being 173½ and the low 149½, and 1909, high, 135; low, 124¼. Brooklyn Rapid Transit, 1902, high, 78; low, 54¾; dividend, 0, and 1909, high, 82⅞; low, 67; dividend, 3, shows that the increased dividend had been largely discounted seven years before its declaration. Chicago Union Traction, 1902, high, 23; low, 10¾; dividend, 0, and 1909, high, 7; low, 3½; dividend, 0, has steadily declined. The Cleveland lines, previously capitalized more conservatively than those of most other cities, show clearly the possibilities of "physical valuation" and lower-fare political agitation. The 4 per cent. dividend has disappeared, and the decline is well represented by the scaling down of the stock in exchanging Cleveland Electric for Cleveland Railway, the ratio having been 100 to 55. The Detroit United, in spite of owning some excellent interurbans, has, because of somewhat similar conditions, been forced to pass its 4 per cent. dividend, and shows a high of 97 and low of 75 for

1902, as against a high of 72 and a low of 56 for 1909. Interborough-Metropolitan shows the usual downward drift, while Philadelphia Rapid Transit, a particularly gross case of overcapitalization, the underlying securities alone representing a much greater capitalization than the whole road should have, shows but a small increase in spite of the continual increase in the amount "paid in" from $5 in 1902 to $50 in 1909. Seattle Electric, 1902, high, 87½; low, 58; dividend, 0, and 1909, high, 117½; low, 90¼; dividend, 7½, shows the effect of the usually efficient Stone and Webster management and the remarkable growth of Seattle in overcoming the effects of basic tendencies. Toledo Railways and Light, 1902, high, 38; low, 32½; dividend, 0, and 1909, high, 13⅞; low, 7; dividend, 0, shows merely the drift of general tendencies, which, however, usually affect lines in cities the size of Toledo less severely than those of larger cities. Twin City Transit, 1902, high, 129; low, 107; dividend, 5 per cent., and 1909, high, 116⅞; low, 97, shows but small decline and has continuously maintained the 5 per cent. dividend. The list could be greatly enlarged, but the showing would still be that of the same general downward drift, with an exception here and there of stability, or even a raise in market quotations, owing to some unusual or special local conditions.

Prices of material and labor have been rising, tending to make the sort of ride formerly furnished cost more than before, while the ride itself is longer and the accommodations better. And, worst of all, the short journey in a lightweight horse car, drawn slowly upon a light, cheap track, was paid for by the five cents of those days, with its much greater purchasing power, yet the tendency of late years has been to decrease the fare paid more and more below the traditional five cents, even though this is itself steadily depreciating in purchasing power.

The problems confronting city lines are admirably stated by a number of eminent and successful street railway men in the January 1, 1910, issue of the *Electric Railway Journal,* under the title, "Electric Railway Situation; a Review of the Problems of the Year." Their opinions in regard to the prospects of future financial success without increase of rates of fare are in substantial agreement and uniformly pessimistic. Several of these articles will be quoted at considerable length.

W. H. Glenn, manager of railways, Georgia Railway and Electric Company, in an article entitled "Fares on City Lines," says: "This rapid process of evolution naturally causes retrospection, and we recall the days of stage coaches and horse cars. Twenty years ago electric cars were unknown and horse cars were the greatest medium of city travel. This method was slow and tedious; the driver was the change maker and the passenger was the collector. The longest ride at that time was not more than two miles and the fare was five cents, just as it is to-day. The investment in equipment was comparatively small, yet no complaint was made that the fare was too much. This fare of five cents has been universally adhered to from that day to this, notwithstanding the fact that the facilities offered by the transportation companies to-day are vastly more rapid, more comfortable, more convenient, more safe, more reliable, and the average maximum haul is at least five times as great. . . . In reality, the fare of to-day is only one-half of that collected twenty years ago, for in that length of time the price of almost everything entering into the cost of street railway transportation has increased 100 per cent. Lumber that was bought then for $10 per 1000 feet is now $28; steel rails that were bought then for $24 per ton are now $42, and a ton does not go half so far; copper, once at twelve cents per pound has lingered around twenty cents for the past few years, and has gone as high as twenty-six cents. In 1898 day laborers could be employed for seventy-five cents per day, while in 1907 they received $1.50 per day and their work was not nearly so satisfactory. Twenty years ago such things as damage claims were almost unknown, while to-day they appear in hordes, consuming from 5 to 15 per cent. of the gross revenue of the companies. In like manner all other costs, have increased; yet all this time the fare of five cents has remained the same, while five times as good service has been given at an increased cost today of 100 per cent. over what the same service could have been furnished for twenty years ago. . . . The men, women and children who ride on the cars receive more for their labors or for their wares than they did ten years ago. Every one of them pays more not only for the luxuries of life, but for its necessities, than ten years ago. When a laborer walks into a butcher shop the buying power of the five-cent piece in his hand decreases 50 per cent. under that of ten years ago; yet the instant he steps on a car and

tenders it to the conductor in payment for his transportation it immediately increases 500 per cent. in buying power."

C. L. S. Tingley, second vice-president of the American Railways Company, says in part: "The nickel has been purchasing more and more year by year in the way of street car transportation; its power to purchase in other directions has been declining year by year; wages have been steadily advancing, and if the demands made by organized labor and the platforms which they are promulgating are any criterion, the end is not yet. Materials have kept pace with or outrun labor. In a table published in a recent number of the *Railway World,* giving the costs of materials used on steam roads, all of which would enter largely into the operation of electric roads, for a ten-year period from 1897 to 1907 the increase ranges from 24.70 per cent. on brick to 136.34 per cent. on pig iron. It is apparent that something must be done if the electric road is to stay in business and make a return on the capital invested. The most obvious means of meeting this difficulty would seem to be the adoption of the system so prevalent in Europe, commonly known as the zone system, whereby the rate of fare paid by each individual is proportionate to his ride. This is undoubtedly a logical and scientific method; it is, however, open to a number of objections. The American public has been educated to the other system, and the outcry against any change would undoubtedly be great, particularly as it would, undoubtedly, be supported by philanthropic individuals and associations on the ground that the zone system tends to create congested districts, forcing workingmen into the tenements, producing unsanitary conditions, and handicapping his children in their physical and moral growth." Mr. Tingley might truthfully have added, that, as far as the near future is concerned, the zone system is rendered impracticable in almost every city in the United States because of existing franchises, usually still with many years to run and often expiring part at a time.

Edwin S. Webster, of Stone & Webster, of Boston, a firm that has been unusually successful in building and operating important and widely scattered electric railway properties, in an article entitled "Comments on the Electric Railway Situation," says: "The problem of securing an adequate revenue from passenger fares appears to be the most serious issue now confronting the electric railway industry. In the early days of electric transportation the

five-cent fare unit was, on the whole, appropriate to the standards and cost of service rendered. The rolling stock was composed of small, light cars, usually of the single-truck type; the speed of operation was relatively low; the power demands per car were moderate; the cost of labor and materials was far below present figures; comparatively light roadbed, track and line construction met the requirements of the traffic, and the investment per mile of track varied from one-half to one-sixth that of the present, depending upon the size of the community served and other local conditions. Even in the larger cities the transfer facilities were greatly limited, and the average haul per passenger was much shorter than to-day.

"The standards and costs of service now rest upon an entirely different plane. The expansion of city systems into suburban territory has raised the average length of haul independently of other causes. The transfer situation has become serious, through its extension beyond reasonable limits. The purchasing power of the nickel from the standpoint of the passenger has greatly increased. From the point of view of the operating company, however, the nickel pays for the conduct of considerably less transportation than a few years ago. The cost of power has been reduced to some extent by improved technical administration (and increased technical efficiency) of generating and distributing equipment, but not enough to offset the enlarged demands of heavier cars operated at increased speed. The growth in the size and weight of cars has increased the rolling stock investment account and necessitated the expenditure of large sums of money for physical plant, including heavier track and more permanent roadbed construction, multiplied capacities in power stations and lines and enlarged facilities for the economical maintenance of equipment. The advances of the past few years in the cost of labor and material have placed a premium upon new construction work and have narrowed the margin between receipts and expenses. Under the early conditions, average fares of from one to one and one-quarter cents per mile enabled the companies to make progress; to-day these returns are insufficient to provide a reasonable dividend in many properties and maintain the most modern standards of service. The increased length of ride now possible upon a single fare of five cents makes it difficult for the larger city properties to earn a reasonable dividend, and only in a less degree does this condition bear upon the

companies of smaller size. The relatively great density of traffic in the larger city is not sufficient to offset the burdens of transfer, the extension of lines into outlying districts and the rising cost of operation.

"In the larger cities there must be some change in the transfer situation in order to secure a fair return to the companies. Scientific administration of properties is insufficient to meet the rising costs of service rendered to the traveling public. The average haul per fare must be reduced through the restriction of transfer privileges or the imposition of some sort of a charge for transfers issued. The policy of selling fares at reduced rates must be closely scrutinized, and in many instances abolished. The fare unit in itself will have to be raised to six cents or over in cases where it is clear that a line cannot be operated with reasonable profit on a five-cent fare basis, or else the fare zones will have to be shortened. *Otherwise a line honestly capitalized will have to reduce its capital to a point below the actual investment in the property.* Denial of a reasonable return upon a proper investment and insistence upon the highest standards of service closely approach confiscation."

These authoritative opinions, together with others in the January 1, 1910, issue of the *Electric Railway Journal* by a number of authorities, including R. P. Stevens, president of the Lehigh Valley Transit Company; Charles S. Sergeant, vice-president of the Boston Elevated Railway; Thomas McCarter, president of the Public Service Corporation of New Jersey, and J. M. McMillan, general manager of the Pacific Electric Railway, agree in their lack of belief in future financial success without increase in fare. While the cities were originally glad to give long-term franchises free in order to secure the advantage of the primitive service of the early days, yet now that the enormous investments have been made and are worth comparatively little without the renewal of the franchises from time to time, the cities have the whip hand and there is a constant and pressing demand for extensions and improvements of lines, for reduction of capitalization and earning to "physical valuation" figures, for elevated roads and subways, for increased direct taxation or indirect taxation by means of payments for franchises, profit sharing, free passes for city employees, paving and paving maintenance, bridge construction, snow removal, street cleaning or

other highway expenses as conditions precedent to the renewal and extension of franchises.

As for hope from the fundamental relief of raising fares, there is practically none. The tendency is rather the other way. In the noteworthy case of Cleveland it has taken such extreme form that the border line between regulation and confiscation has been reached, if not passed. At any rate, it cannot be disputed that those who invested in Cleveland Electric Railway Company stock prior to the famous three-cent fare agitation lost heavily, and that the test of "physical valuation," as applied to the Cleveland lines in settlement, would in many other cities have had the more drastic effect of wiping out the stock altogether, and even, in some cases, part of the underlying stocks and bonds as well. One who can hope for such a general, radical change in public sentiment as to reverse completely the tendencies we have mentioned and so to make investments in city street railways increasingly attractive instead of increasingly unattractive would, indeed, be an optimist. The increasing cost of labor and materials, being in large part directly or indirectly the result of the increasing overproduction of gold, which, as far as can now be seen, will continue indefinitely or even increase, is thus practically a permanent and increasing "bear" factor with present rates of fare. The signs of relief from public service commissions are indeed faint. They seem to indicate merely the inevitable truth that the cities, in self-defense, cannot afford to have their transportation systems entirely wrecked. An assessment, scaling down or elimination of the common stock, or even, in many cases, of some of the underlying or "guaranteed stocks," would often not only not be contra-indicated, but would, on the other hand, often be the best solution. The fact that often these represent no real "physical valuation" would be small comfort to those who thus may see their investments wiped out entirely or scaled down.

An additional bear factor is the fact that, though proper maintenance is as essential to the getting of revenue and to the rendering of a suitable service as it is to the preservation of the assets against which securities are issued, the revenue of American street railways has not been charged with sums even approximating the actual costs of maintenance. This has resulted in an erroneous idea of past profits. This often was exactly what was intended as an aid to the "insiders" in unloading to advantage. The increased

capitalization which has of necessity resulted has in the past often been supplied by the issue of additional stock on bonds, often during the reorganizations and consolidations previously mentioned. At present the results are showing in the "rehabilitation" idea now becoming the keynote in most of our largest cities. Chicago has been spending $50,000,000 in making over her lines, but Cleveland, Baltimore, Brooklyn and New York and other cities are already feeling the need for enormous rehabilitation expenditures. This lack of proper maintenance in the past has been an aid in making a proper showing on paper and in meeting fixed charges and dividends. It will now become an increased fixed charge itself—an additional burden to be reckoned with in the future.

Only in the most exceptional and unusual cases can there be hope for appreciation in stock values of city properties, especially those of the larger cities. On the average, they should be tending and are tending toward a lower level, and receiverships should become more frequent.

Suburban or Old-style Interurban Electric Roads

The suburban and other lines of the type common in the East, but found elsewhere; the sort that run beside, or more usually upon, the country highways and through the streets of suburbs or small towns, are distinct from the city line and from the real interurban. They are in part survivals showing the evolution of the interurban, for the prototype of the interurban, like that of the original railroad was simply a modification of the highway. Such lines save the cost of private right of way and have the advantage of running by the doors of established homes, both in the towns and along the highways. While they often charge five cents for a ride of varying lengths, yet this is simply a convenient way of collecting the fares, due to the fact that most of the rides are not of great length. Franchises and rates of fare usually do not menace the future as seriously as in the case of the city lines, though they are often operated under township and county franchises which, at times, can be renewed only upon onerous conditions. The fare is often not even up to the limit allowed by state law.

Much of the traffic seems practically permanent and destined to increase naturally with the growth of the country. Such of these

lines, however, as draw from the same territory and, in fact, often for considerable distances practically parallel existing steam roads are exposed to the probable future competition from electric traction on these roads, which with equally frequent headway and stops, combined with the high standard of the present steam road construction and terminal advantages, would readily rob them of much of their present traffic—in many cases of such a large proportion as to make the bearing of their bond interest difficult or impossible. A modern interurban in most cases would be unlikely to be constructed in the same territory, but in case of the construction of such a road it would, in proportion to its closeness to the suburban or old-style interurban, appropriate the traffic.

While the fare and franchise problems, often entirely nonexistent, are seldom as serious as in the case of the city lines, and while in many cases the country would not justify a real interurban, and no steam road is close by to change traffic conditions by electrification, yet the limitations even under the more fortunate conditions are marked. High speed cannot be obtained upon a highway, even in case considerations of public safety and franchise or ordinance obstacles should not intervene. The general alignment of such lines is seldom good, and the highways upon or along side of which they are usually built are laid out with sharp turns and heavy grades—without engineering skill or common sense. In fact, as a rule, every principle of railway location and economics is violated with a consistency that is maddening to the civil engineer. The electric car can, it is true, show a remarkable superiority to a steam train in climbing the heavy and broken grades and in taking the sharp curves, but this is an abuse, not a proper use, of the superiorities of electric traction. The results show not only in the decreased speed and maximum load possible, as compared with similar equipment on a proper location, but also in the increased coal bill. Hopes for much future freight and long-distance passenger traffic should not cheer the stockholder. With, as a rule, but little to offset the increasing tendency of wages and cost of equipment, there can only in isolated and special cases be much increase in dividend yield and safety. On the average, the prospect is not favorable and in many cases it is distinctly unfavorable.

Modern or True Interurban

We now come to the modern or true interurban. In a typical case, it represents a high-speed passenger electric line, carrying, however, in addition to its passenger traffic, express and freight, and running on private right of way through the country or even through the smaller towns. These lines center largely around Los Angeles, Indianapolis, Cleveland, Dayton, Detroit, Toledo, Columbus, Milwaukee, Seattle, Portland and Spokane. They, however, are in no sense suburban. They usually connect towns and cities separated by considerable distances from one another, and a large proportion of their traffic is for distances of over ten miles, a considerable proportion for over twenty-five miles. The greatest mileage development is in Ohio, but the Indiana star formation, with links connecting almost everywhere, is the most completely centralized, radiating in every direction from Indianapolis. The traffic is heaviest, however, around Los Angeles; and, on the whole, the great Illinois Traction System, with five hundred miles of well-balanced and connected lines, not centering in any one large city, is the most typical of the extreme interurban development.

There was no considerable suburban population in the Middle West or Pacific Coast sections at the period when the first Eastern city lines extended cautiously along the highways near the larger cities, following the established population and keeping close to the original "street car" idea. The town or city lines, built, of course, for slow speed and local traffic, were naturally joined, or the short intervening links filled in by separate companies, but with the same ideas of economics and construction. There was no idea of rivaling or of seriously competing with the steam roads. They hoped for only the leavings, and, as far as they affected the steam roads, to be merely feeders.

Often, especially in New England, this tendency was increased by the fact that in large part they have come under the control of the steam roads, especially under that of the New York, New Haven & Hartford. In Pennsylvania, the only Eastern state having a large area coupled with a widely scattered population such as would naturally lead to true interurban development on a large scale, such development was prevented by the dominating influence of the steam roads in the legislature, preventing until recently such development

by not allowing electric roads the right of eminent domain, without which true interurban construction is impossible, or the right to haul freight and express, thus removing a present considerable source of income and a future one of especial promise. They in large part suited the conditions of dense population along established highways, and the short distances involved in the first extensions. They avoided the initial expense of private right of way, which in such well-populated sections would have been heavy.

The real interurban was an equally natural development of the more scattered towns and small cities of the Middle West, and especially of Ohio, Indiana and Illinois. Private right of way was naturally not as valuable as in the more thickly settled East, and properly skilled right-of-way agents could induce the more progressive Western landholder to make proportionately greater sacrifices than would have been possible farther east. Higher speed was more necessary by reason of the greater distances and more scattered population; the private right of way made considerations of alignment, gradients and curvature possible, and these, in turn, made possible the required speed. The electric road began to come into its own—no longer a street car line, any more than a railroad is an ordinary road with rails laid upon it. The more progressive West assimilated gradually the idea that curvature and gradient affected draw-bar pull in the same way whether the motive power be mule, electric or steam; and, as the science of railroad engineering had long since been perfected by the Rocky Mountain experience of the great transcontinental locating engineers, it became largely a matter of applying the science of steam railroad engineering to the problems of electric construction, the economics of which were worked out by common sense, business acumen and actual experience, as modifications of the economic theory of railway location as exemplified in Wellington, the classic authority of the railroad locating engineers.

The electric road had come to its own at last. Instead of being a dependent feeder of the steam road, the interurban had a definite field of its own. The more frequent headway and stops closer together, made possible by the direct advantage of electric over steam traction and through the indirect effect of the smaller units of operation made possible thereby, together with the more cleanly, pleasant and comfortable service, often more convenient to

residence and business, placed them beyond fear of serious competition from steam traction on shorter hauls. At first it was assumed that the limit of through service that could really get traffic from steam competition was about twenty-five miles; but now it is found that in the case of the limited cars in the Middle West, by the construction improvements above mentioned, by improvement in operation and by cutting out unimportant stops, the time of accommodation trains on steam roads can be approximated or exceeded, and thus, with the other advantages named, they are able to compete in an increasing number of cases for much greater distances. For example, the Fort Wayne & Wabash Valley Traction Company in the face of direct steam competition does the bulk of the passenger business between Fort Wayne and Indianapolis, a distance of one hundred and thirty-seven miles.

These numerous advantages, together with the increase in the number of country and suburban homes resulting, and a change in farming methods close to the lines, causing an increased tributary population, especially by the growth of trucking and dairy farming, made possible by their freight service and itself giving a constantly increasing passenger and freight traffic, naturally caused the promoting, financing and building of interurban roads to proceed with great rapidity. Hopes of a great and constantly increasing return caused an unusual speculative enthusiasm.

Satisfactory statistics of interurbans are unusually difficult to obtain, but the first annual report of the Ohio Railroad Commission covering electric roads and giving elaborate details of the business of some sixty electric roads coming under its jurisdiction for the year ending June 30, 1908, the second report is not yet available, is unusually satisfactory. The larger city companies are not included, although in several cases the interurban roads operate city properties and the earnings of these properties are included in the total earnings and are considered under the total capitalization. The same is true of several properties operating lighting and power systems. Nevertheless, these figures are interesting as showing the average conditions, and are unusually free from the mingling of subway, elevated, city, surface, suburban, interurban, power, light and even gas statistics that make the usual report a veritable hodge-podge that is neither fish, flesh nor fowl.

The sixty companies represent 2,794 miles of track. The stock

is $136,461,000 and the outstanding bonds $89,308,000, a total capitalization of about $80,000 per mile, including, of course, both stock and bonds. The total so-called "cost of construction" to date is given as $185,976,000, or on a basis of $66,485 per mile. Some of the older roads which have gone through periods of reconstruction and consolidation—in some cases receiverships—represent as high as $100,000 per mile. On the other hand, some of the later and more modern roads report investments of only $28,000 to $30,000 per mile. The Scioto Valley, a high type of third-rail line, equipped for heavy freight, reports an investment of $67,000 per mile. Twenty-two of the sixty companies failed to earn their fixed charges, their total deficit being $566,243. Twenty companies paid dividends aggregating $808,000—considerably less than 1 per cent. on the total outstanding stock of the sixty roads, and of these dividends only $436,000 was paid by the operating companies, the balance being guaranteed dividends paid to stockholders of leased lines. Two of the operating roads paying dividends have no bonded indebtedness and were built and are operated by the owners. Only two roads reported operating expenses of less than 50 per cent., while three claimed it cost them more than 100 per cent. to operate. The average of the sixty companies was 61.47 per cent.

Most of the roads are developing the freight business, but the greatest percentage of freight business to the total was that of the Toledo & Western Railway, which reported 33.51 per cent. of the gross as coming from freight, while the Eastern Ohio and the Interurban Railway and Terminal Company each reported 19 per cent. The average for forty-nine roads doing a freight business was but 5.81 per cent. of the total gross business, while light, power and "other items," the latter including, of course, express, United States mail and car advertising, aggregated 5.93 per cent. of the gross.

The average fare per passenger is 11.5 cents; the highest that of the Scioto Valley, 28.1 cents, while that of the Lake Shore Electric, in spite of its long-haul Cleveland-Toledo business, is but seventeen cents per passenger. These figures show that, in spite of the increasing long-haul development, the short-haul business predominates. The average of the steam roads of Ohio was sixty-four cents per passenger.

The conclusion is obvious that, as shown by these typical figures, interurban railroad stock has not usually been a good in-

vestment; in fact, has not, as a rule, yet attained the status of a true investment at all. The figures, in fact, on their face make a much worse showing than those of the city or suburban lines which, as we have seen, are themselves not, as a rule, desirable investments.

In reality, however, these figures show nothing that does not justify the favorable treatment given previously of the true interurban, nor do they give us any reason to believe that the speculative enthusiasm in promoting, financing and building the interurbans was not justified. Some understanding of the true inwardness of the financing and construction is, however, necessary.

The ways and means were almost infinite, but in general the stock represented no real investment. Among those engaged in the work of financing and constructing such roads it is frankly regarded as "velvet." It is certainly safe to say that there is not an interurban road in Ohio that actually represents an investment of $66,485, the average "cost of construction" per mile as reported by the sixty companies. Indeed, in amount really invested the half of this average "cost of construction" has not been, as a rule, exceeded in Ohio.

The most noteworthy groups of financiers and constructors of the best types of the modern interurban are in Cleveland. One of the many methods is to form a syndicate, the members of which pay in previously subscribed installments as the construction progresses, and the construction work and installments paid furnish collateral for borrowing. In the meantime the investors have certificates of participation to show for the amount invested, or even only receipts for the amount paid in. When the road is sold entire, by vote of the controlling interest of the syndicate, or by the syndicate managers themselves, by virtue of the authority vested in them by the syndicate agreement, there is often a very considerable percentage of profit made upon the entire amount spent in construction, a large part of which, say one-half in this case, is borrowed, leaving a still greater profit upon the speculative investment of the participants. In case the road cannot be disposed of as a unit, the syndicate may issue bonds for an amount equal to or greater than the cost of the road. In such cases the syndicate managers often operate the road for a while, trying to work the earnings up so that it can "bear the bond interest," as they say. Actual cost is not considered as the real criterion of the proper amount of bonds to be

issued. The proper value is regarded as the earning power capitalized—what the road is worth as a going concern. If this is not more than the actual cost, the road is a disappointment. The stock is an afterthought, pure "velvet"—the capitalization of the hopes and expectations of the future. The fact that in a typical cost of financing such hopes and expectations have not yet been realized is no argument that they will not be. Part of the stock may be given with the bonds to the syndicate participators in case of distribution due to the dissolution of the syndicate, or with the bonds as a bonus in case of sale, the participants retaining other stock as part of all their profit, in the latter case being repaid for their investment entirely from the proceeds of bond sales. In connection with the general syndicate mentioned above, there may be also an underwriting syndicate, composed altogether or in part of the real powers behind the financing. A construction company almost always, and perhaps an engineering company, in addition, each also composed in part or altogether of the same powers, may play their part, and the trust company or companies that carry the loans, and perhaps also join in the underwriting syndicate mentioned, must be reckoned with. Some of those really "behind the proposition" are probably directors or officers of the trust company. Control of, or a "pull" with, one or more trust companies is a point of fundamental importance. In short, there are wheels within wheels and wheels within the latter. The members of the general syndicate may be very far from being on the real inside. There are often many cellars below the ground floor, and but few know their contents.

This statement of one of the many examples is not meant as a criticism of methods or men. The participants in the general syndicate in the case given may not be on the real inside, but, if they go in on the propositions of certain experienced groups, they almost invariably make money with very little effort on their own part, and not only once but often, turning their money over every two or three years, investing in one road after another under conditions varying in the details of financing, but in general similar. They have every reason to intrust their speculative investments to the men whose financial power and business ability have repeatedly made money for them. These real insiders, too, who promote finance and build such roads cannot be expected to do it for an

ordinary investment return, or even for such proportionate gains as the ordinary participant in the general syndicate secures. Such men are financial powers and are leaders in the interurban development, throwing aside precedent and developing an admirable public utility which has already become a most important factor of betterment in the sections they operate in; and with resources and ability that would win excellent returns in a less risky and harrowing business, they cannot be expected to develop such betterments for health's sake.

Our conclusion cannot well be other than that the stocks of many of the larger and better systems which have gone through most of their construction development offer excellent speculative investments. With, as a rule, steadily increasing population, wealth and industry tributary, practically no franchise difficulties, right of way and terminals rapidly increasing in value, a growing proportion of freight and express traffic, and no serious fare difficulties—as a rule their fare is below the maximum limit allowed—the tendencies are in the main toward betterment. Public opinion is distinctly favorable. In case of close competition with steam roads the latter are increasingly inclined to abandon more and more of the shorter haul passenger traffic to them, while the electric roads are successfully competing for constantly increasing distances. By the connecting of existing roads by new construction, their own interchange of passengers, freight and express is increasing. Further development in the line of sleeping- and dining-car accommodations may ultimately be an important additional factor in increasing their long-haul passenger traffic.

Interchange of freight with steam roads is already established in several important cases. Large, well-balanced and well-connected systems, like the Illinois Traction, of Illinois, and the Union Traction, of Indiana, have far less to fear from the steam roads of the same section than the latter have from them. The stocks are, of course, in their infancy as investments, and are usually not dealt in actively, but for the investor who is discriminating and who desires something in which the future holds strong speculative possibilities, many of them should be attractive. The groups of financiers who built the better lines successfully discounted the immediate future and have realized their profits, but they built for a greater future, which has not yet been realized.

INDUSTRIAL STOCKS AS INVESTMENTS

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Industrial stocks are constantly becoming of greater importance in the investment field. The term "industrial stocks" is here taken to mean the securities of those corporations engaged primarily in the manufacturing business, as distinguished from public utility, irrigation or mining companies, which are frequently classed under the general term "industrials." The strongest reason for expecting the popularity of these stocks to increase steadily lies in the character of the country's development. We are living to-day in the manufacturing or industrial era, whereas the previous period, which began before 1880 and lasted until after 1890, was primarily the railroad age. The railroads will always share largely in the normal growth of the country, and while this is still rapid, the day of really great opportunities in the railroad world in this country has gone by. We shall never again witness the transformation in a decade or less of a road, described as a streak of rust, earning nothing and serving a practically uninhabited country, into a modern system, with rock-ballasted roadbed, protected by block signals and equipped with the very best and latest facilities, and paying handsome dividends.

The earning power of industrial companies is comparatively much more flexible than that of railroads. The tendency to fix by legislation the maximum rates which may be charged for transportation has gone so far as to restrain the smooth working of basic economic laws. At this time of constantly increasing prices of raw materials and labor the limit of profit has become more or less fixed in the case of railroads, whereas the manufacturing companies are practically free to increase the prices of their products commensurate with the advance in their operating costs. From the investor's standpoint these conditions have produced a clear distinction between the railroads and industrials. For with the former it is becoming now largely a question of maintaining their earning power by making new capital expenditures, while with the latter new capital is almost always productive of an increase in earning power.

The necessity of changing the motive power of railroads from steam to electricity, of driving tunnels under rivers, of vast enlargements of terminal facilities, such as we have seen in the case of the New York Central and the Pennsylvania Railroads, requires an outlay of capital on which the return is certain to be small, at least in comparison with the results of former years.

One of the most vital influences on both railroads and industrials lies in the development of legislation affecting them. While up to the present we have not progressed far enough to determine the final outcome, it would seem that industrial corporations have less to fear from this source than the railroads, for the reason that transportation companies are quasi-public institutions, while manufacturing companies are entirely private in their character. A public service or an interstate commerce commission may arbitrarily order an increase in the number of trains run, or reduce the rates which may be charged, but no law except that of demand and supply regulates the output of the factory or the price of its products. Carried to an extreme, present railroad legislation would result in government ownership of the railroads. Indeed, we have only to glance at Europe to see the very achievement of this. It seems less likely, however, that, in the words of a socialistic journal, we are about to "let the nation own the trusts," or any other form of private manufacturing enterprise. In most foreign countries to-day the shares of the industrial companies offer exclusively the most attractive opportunities for general investment.

Allusion has been made above to the present as the manufacturing age in this country. Without doubt one of the greatest causes in making it so has been the combination of capital. The stability of industrial stocks as investments rests on their power to earn fair profits under all circumstances. In other words, they must be independent, in so far as possible, of local influences, either in a special line of trade or in one particular country. Through the combination of smaller units into the great industrial corporations of to-day, these problems have been solved in a highly satisfactory manner; in the first instance by diversifying their products, as, for example, the United States Steel Corporation, which manufactures everything from steel rails to wire nails; the International Harvester Company, which produces twine as well as the most complicated harvesting machinery; the American Locomotive Company, which builds auto-

mobiles and locomotives, and so forth. By establishing selling agencies and building up a clientele in foreign countries, and in some instances by actually installing manufacturing plants abroad, the industrial companies have largely insured themselves and their shareholders against dangers from purely local causes arising in any single country.

The large industrial companies are responsible for the great progress in the scientific methods of manufacture. In practically every case they maintain a large experimental department with a staff of highly trained experts. By this means chiefly has it been possible to discover the most economic methods of manufacturing and to achieve remarkable results in the utilization of by-products, which heretofore had been counted as total waste. The enormous expense of this experimentation, which necessarily often yields nothing, naturally prohibits the small manufacturer from engaging in it, although he frequently profits by the results.

The control of the supply of raw materials has injected still another great element of strength into the industrial companies. A very large number of manufacturing companies control their own coal, iron, copper or tin mines, limestone quarries or forests of timber, or whatever they may require in the manufacture of their finished product. The value of this lies not only in the protection against extreme price fluctuations, but also in the certainty of obtaining a constant and sufficient supply at all times and under all circumstances. In many cases this policy extends not only to the control or ownership of raw materials, but also to adjunct manufactures and transportation facilities, either on land or by water.

Recent developments in the United States have been such as to make industrial shares more desirable to the investor than ever. In the panic of 1907, and in the business depression which followed it, the financial soundness and earning power of all business enterprises were put to a very severe test, and the record of only one important receivership among industrial companies, which was due primarily to injudicious financing rather than to the falling off of the company's own earning power, is most significant, especially when contrasted with the record of the railroads showing twenty-four receiverships involving over 8,000 miles of road. Furthermore, many large industrial companies have in the very recent years made additions and extensions, in many cases out of earnings, to the capacities

of their plants, with the general result that they are in a position to handle more business at a greater profit than formerly.

Most of the stocks of the larger industrial companies are listed on the New York Stock Exchange. Not only does this give them the important advantage of a free and broad market, which makes them acceptable collateral in loans, but it also enforces the fullest publicity as to earnings and operations, which is seldom found to exist among companies not listed on the exchange. It is gratifying to note that the tendency of the stock exchange is to require more and more complete reports. The relatively higher standing in the eyes of investors which is enjoyed by the companies giving the most complete information, is gradually causing all the large companies voluntarily to take the public into their confidence to the fullest extent possible. This is even more important in the case of foreigners, who have fewer facilities than domestic investors for obtaining reliable information on companies in which they are interested, unless such information is given in an official statement of the company.

The question of the relation of the tariff to industrial companies has too many ramifications to be discussed here at length. Suffice it to say that one of the most important reasons for the establishment of the tariff was to protect and promote the growth of our infant industries. Most of these have by now become firmly entrenched. Due to their natural growth and the growth of the country, their perfect organizations and scientific methods, they are now in a position to conduct operations at a substantial profit, and even if part of the protection were removed they could still compete successfully with foreign products. Past experience has shown us, however, that such changes come about gradually, allowing plenty of time for the adjustment to take place.

In general it may be said that the preferred shares of industrial corporations represent the immediate earning power at the time of organization, and that the common stocks represent the hopes and possibilities of the future—which in most cases of industrial companies have been more than realized. Recently, though, there has been a healthy tendency to issue common stocks, based conservatively on an actual earning power, the International Harvester Company being a notable case in point. Naturally, from the standpoint of pure investment, without regard to speculative possibilities, the preferred stocks are more desirable than the common, but there are

special cases where the preferred has also a speculative value, as, for example, those which share in dividends with the common after a certain amount has been paid on the latter, or in other cases where a newly issued security has not yet had an appreciation in value which steady absorption by investors generally produces.

The following table gives a list of twenty companies, whose shares are quoted on the New York Stock Exchange. These companies, which are representative of the general class of industrial corporations, both in respect to their financial standing and the character of their products, show a record of having paid the dividends on their preferred stocks *without interruption,* with the exception of one company, whose dividend in arrears amounts to a little more than one semi-annual payment. The average rate paid by these companies is 6.65 per cent. This average dividend was earned on an average two and five-eighths times over. The average price of the preferred shares of these companies was 107 on March 1st, making the average yield 6.19 per cent. These figures seem to give pointed evidence as to the safety and attractiveness of industrial stocks as investments:

	Incorporated in	First Dividend Paid in
American Agricultural Chemical, 6 per cent. cumulative..	1899	1899
American Beet Sugar, 6 per cent. non-cumulative.......	1899	1899
American Car and Foundry, 7 per cent. non-cumulative..	1899	1899
American Cotton Oil, 6 per cent. non-cumulative.......	1889	1892
American Locomotive, 7 per cent. cumulative...........	1901	1901
American Smelting and Refining, 7 per cent. cumulative	1899	1899
American Sugar Refining, 7 per cent. cumulative........	1891	1891
American Tobacco, 6 per cent. cumulative..............	1904	1905
American Woolen, 7 per cent. cumulative...............	1899	1899
Du Pont de Nemours, 5 per cent. cumulative...........	1903	1903
General Chemical, 6 per cent. cumulative...............	1899	1899
International Harvester, 7 per cent. cumulative........	1902	1907[1]
International Steam Pump, 6 per cent. cumulative......	1899	1899
National Biscuit, 7 per cent. cumulative................	1898	1898
National Lead, 7 per cent. cumulative..................	1891	1892
Pressed Steel Car, 7 per cent. non-cumulative..........	1899	1899
Railway Steel Spring, 7 per cent. cumulative...........	1902	1902
Republic Iron and Steel, 7 per cent. cumulative........	1899	1899
United States Steel, 7 per cent. cumulative............	1901	1901
Virginia-Carolina Chemical, 8 per cent. cumulative....	1895	1895

[1]Preferred stock issued in 1907.

STOCKS OF FINANCIAL INSTITUTIONS

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In considering this field for investment, we may say at the outset that its importance is very apt to be underrated, because of the fact that the stocks of financial institutions are not as a rule the subject of active speculation upon the great stock exchanges, and accordingly the attention of investors is not attracted to them daily, as in the case of railroad stocks, by market reports and an abundance of newspaper comment.

While it is difficult to estimate with any exactness the total volume of these securities, we have in the case of national banks an exact compilation made by the Comptroller of the Currency, as of January 31, 1910, which shows that on that date there were in the United States 7045 national banks, and that the aggregate of their capital, surplus and undivided profits was as follows:

Capital stock	$960,124,895
Surplus	619,838,370
Undivided profits	199,342,082
Total	$1,779,305,347

It is usually estimated that the capital invested in state banks and trust companies throughout the country is nearly equal to that invested in the national banks, and if we add to this the amount invested in fire insurance companies, surety and casualty companies, title insurance and mortgage companies, we may perhaps conservatively estimate the total volume of the stocks of financial institutions in the United States as represented by book value to be somewhere between $3,500,000,000 and $4,000,000,000. But as it is almost impossible to grasp the significance of such immense figures, except by comparison, we may say roughly that the amount invested in these securities is probably somewhere between twenty per cent. and twenty-five per cent. of the total investment in the stocks and bonds of the steam railroads of the United States.

The volume of these securities is then important enough so

that an analysis of their characteristics may well claim our attention. In a prospective investment the investor always looks for four great cardinal features: First, security; second, income return; third, appreciation in value; fourth, marketability.

The relative stress of his requirements as to each of these features will depend first upon his temperament and second upon his circumstances. His success in finding securities which really meet the requirements he has set for himself will depend partly upon the information available, partly upon his ability to analyze and weigh the information which he obtains, and mostly upon his general judgment.

As the different classes of financial institutions differ widely in many of their general characteristics, we can perhaps best consider each class by itself, comparing first the stocks of this class with other general classes of securities and then establishing, if possible, some broad outlines of analysis that may be of assistance in determining what particular stocks of the class are most likely to meet the requirements of the investor.

Taking up first the national banks, let us consider their characteristics in comparison with other investments, as to the four general features above noted.

First as to security; when we consider the facts that in buying the stock of almost any well established and prosperous bank, it is necessary to pay a high premium over its par value, that the liability of the stockholder is not limited to the amount paid for his stock, but in the event of the bank's failure or impairment of capital, he is liable for an additional assessment equal to the par value of his stock or such amount thereof as may be necessary to meet the obligations of the bank in full; and that the success or failure of the institution is absolutely dependent upon the integrity and the judgment of its officers and directors, the first impression is apt to be that the investment is extra hazardous.

For these reasons the personal element enters more largely into consideration in bank stock investments than it does in almost any other class of securities; in fact, it is the all important element and it is absolutely essential that the investor who would buy bank stock with discrimination should know the reputation and the record of the men who are managing the affairs of the bank in whose stock he wishes to invest. It is for these reasons also that the investment

clientage for any given bank stock increases as a rule very slowly and is generally made up largely of people who either live in the immediate vicinity or who have had opportunities of personal acquaintance with the management.

But, on the other hand, there is perhaps no other line of business which is subjected to such constant and rigid scrutiny by the government as a protection for both depositors and stockholders. Five times a year each national bank is required to make a full report to the comptroller of the currency, showing its resources and liabilities as of a date determined by the comptroller and not known by the banks in advance of the call. Detailed examinations of each bank are also made at frequent intervals by the United States bank examiners and their findings are reported to the comptroller, who is given full power to compel compliance with the law. The result of this system of close scrutiny has been that the percentage of failures among national banks is very small and as a consequence the stocks of these institutions have proved themselves to be, in general, exceptionally secure as investments.

As to income return, the law requires that ten per cent. of net earnings for each half year shall be carried to surplus fund before the declaration of any dividend, until such surplus fund shall amount to twenty per centum of the capital stock, and as it is the general custom among national banks to declare in dividends in ordinary years only a portion of the earnings and to carry the remainder either as surplus, or as undivided profits, the immediate yield in dividends is generally low, as compared with the price paid for the stock. But as the amount so added to surplus increases the earning power of the bank and makes the regularity of dividends more secure, and as the cumulative effect of these accretions frequently enables the bank to pay in time increased dividends, experience has proved that where too great a premium has not been paid, the ultimate yield in dividends has been generally satisfactory, and in many cases exceedingly gratifying.

As to Appreciation in Value. In the consideration of this feature, a distinction should be made between market value and intrinsic value as represented first by net assets, second by earning capacity. While we may safely assume that the average market value of these stocks as a class, if taken over a long period, will fairly represent their real value as compared with other invest-

ments, the question of the market value of any given stock at any given time is influenced so largely by sentiment and by other elements that cannot be measured and that bear no relation whatever to the intrinsic value, that any selection of these stocks with a view to immediate increase in market value is ordinarily a very difficult undertaking.

We can, however, measure with some degree of accuracy the annual increase in intrinsic value of a given stock for a period of years, and thus establish its normal rate of growth and earnings, which is perhaps the best measure of its investment value, and we know in general that the deposits in national banks in the United States have doubled in the past ten years, and accordingly that the banking business as a whole is showing a satisfactory rate of growth and development.

As to marketability. For the reasons noted above, the market for bank stocks is usually almost entirely a local market, and is seldom broad enough or ready enough to appeal to the speculator who trades in fluctuations rather than in values, but for this reason there is generally very little temptation to manipulate their prices, and quotations are accordingly a much better index of the real balance between supply and demand than in the case of stocks which have an active public market.

There is, of course, a great difference between different stock of any class as to degree of marketability, and this difference is perhaps as wide in the case of bank stocks as in almost any other class of securities, so that the investor will do well to make diligent inquiry in advance as to the general marketability of any particular stock which he contemplates purchasing. Some banks are owned almost entirely by one or two individuals, others by one or two families, and still others by one or two financial institutions. In such cases the market for the stock is of necessity an extremely narrow one, but where the distribution of a stock is normal and its earnings and dividends satisfactory, there is seldom any difficulty in finding a market ready enough to meet all reasonable requirements. In fact, it is often much more difficult to buy the stocks of prosperous banks in any quantity without bidding them up unreasonably than it is to sell without unreasonable concessions.

Having thus outlined the general characteristics of the stocks of national banks as a class, let us turn our attention briefly to the

practical question of the selection from the class of such individual stocks as are likely to prove satisfactory as investments.

As we have said above, the most important consideration in such selection is the personal character of the management, but having satisfied ourselves as to this, the next consideration should be the record of the bank as shown by its periodical statements. Referring again to the compilation issued by the comptroller of the currency, we have the whole number of national banks and the aggregate of each item of resources and liabilities. It is evident, then, that if we divide the aggregate of each of these items by the total number of banks, we can construct a typical statement which will represent the average bank.

As the number of banks shown by the statement of January 31, 1910, was 7045, it will be near enough for all practical purposes if we divide each item by 7000 and omit all figures less than $1000. This gives us the following statement for our average or type bank:

RESOURCES

		Per Cent of Total Resources.
Loans and discounts	$747,000	54.1
U. S. bonds to secure circulation	97,000	7.0
U. S. bonds to secure U. S. deposits	6,000	0.4
Other bonds to secure U. S. deposits	2,000	0.2
Bonds, securities, etc.	121,000	8.7
Due from national banks	57,000	4.1
Due from state banks, etc.	22,000	1.6
Due from reserve agents	101,000	7.3
Bills of other national banks	6,000	0.4
Cash	119,000	8.6
All other resources	106,000	7.6
Total resources	$1,384,000	100.0

LIABILITIES

		Per Cent. of Total Liabilities.
Capital stock	$137,000	9.9
Surplus	89,000	6.4
Undivided profits	28,000	2.0
National bank notes	95,000	6.9
Due other national banks	138,000	10.0
Due state banks	70,000	5.0
Due trust companies and savings banks	68,000	4.9
Due reserve agents	6,000	0.4

		Per Cent. of Total Liabilities.
Individual deposits	$741,000	53.5
U. S. deposits	5,000	0.4
Deposits of disbursing office	2,000	0.2
Bonds borrowed	5,000	0.4
Total liabilities	$1,384,000	100.0

We have no definite data as to average earnings from each item of resources, but from a general knowledge of conditions it is quite possible to estimate, not perhaps closely, but with some reasonable approximation what such earnings ought under normal circumstances to average.

We may, for example, estimate the average gross return from loans and discounts as five per cent., the average yield of United States bonds as two per cent., the average yield of bonds, securities, etc., held as investments by the bank as four per cent. The items "due from national banks and due from state banks" other than reserve agents represent in part checks and drafts in process of collection, and the return from these items is, of course, small; perhaps one per cent. would not be unreasonable. The average return from the item "due from reserve agents" we may estimate as two per cent. The item "bills of other national banks" represents loans to depositing banks, and as it is offset in our average statement by the item "due reserve agents," its consideration may be eliminated from both sides of the account. The item "cash," of course, yields no income return. The item "all other resources" represents banking house and other real estate, furniture and fixtures, foreign exchange and other miscellaneous accounts. It is accordingly very difficult to make even an approximate estimate of the return from this item. If we assume, however, that one-half of it is productive, and that this half may yield four per cent., it gives the average return for the whole item as two per cent. In addition to the return from above items, there is a revenue from collections and miscellaneous services which may perhaps average one-quarter of one per cent. of total resources. On the other side of the account, our total expenditures will be made up of interest, expenses, loans and taxes.

In the statement of liabilities the only items involving interest are the various deposit accounts and the item "bonds borrowed." The accounts "due other national banks, due state banks and due

trust companies and savings banks" we may group as deposits of other banks and estimate necessary interest charge as perhaps two per cent. The item of average interest on individual deposits is difficult to estimate, but if we assume that on one-half of these accounts no interest is paid and that on the other half it ought not to average over two per cent., we may perhaps safely estimate that the total interest charge on this item ought not to be over one per cent.

The item "bonds borrowed" is small, and if we estimate the interest charge at three per cent., we shall be near enough for practical purposes. If, now, we estimate that average annual expenses ought not to be over one per cent. of total resources, and that average annual losses should not exceed one-half per cent. of total resources, we can construct a theoretical income account for our average or type bank, as follows:

REVENUE

From loans and discounts	($747,000)	5%	$37,350
From U. S. bonds	($103,000)	2%	2,060
From other bonds, securities, etc.	($123,000)	4%	4,920
From accounts due from state and national banks other than reserve agents	($79,000)	1%	790
From accounts due from reserve agents	($101,000)	2%	2,020
From cash	($119,000)	0%	
From other resources	($106,000)	2%	2,120
From collections and miscellaneous service, ¼% total resources			3,460
Total			$52,720

EXPENDITURE

Interest on deposits of other banks	($276,000)	2%	$5,520
Interest on individual deposits	($741,000)	1%	7,410
Interest on bonds borrowed	($5,000)	3%	150
Expenses of institution 1% total resources			13,840
Losses written off ½% total resources			6,920
Balance for taxes, dividends and surplus			18,880
Total			$52,720

Let it be understood that this estimate is not intended to show with any great accuracy the average earnings of the national banks of the United States, but that it is intended only to illustrate a

method of analysis which will enable the investor to apply his own estimates to the statement of the particular bank whose stock he is investigating. If having modified these estimates in accordance with conditions which exist in the particular field of this bank's operation, he finds that its net earnings as reported for a series of years are about what his estimates would lead him to expect, he can be satisfied that the bank's funds are well handled.

If reported earnings are much smaller than his estimates would indicate, he can rest assured that either interest charges, expenses or losses are greater than they ought to be. If on the other hand, he finds reported earnings much larger than his estimates would indicate, he should be on his guard lest the management in the desire for excessive profit should be taking risks not consistent with good banking.

State banks in their general powers and functions are not materially different from national banks, except that they are without the power to issue circulating notes. As they are examined by and report to state instead of national officers, however, the thoroughness of their examinations and the effectiveness of their general supervision will depend largely upon the character and efficiency of the banking department of the particular state in which they are doing business.

Savings banks in New York, New Jersey and the New England states are mutual institutions, and not stock corporations. In most of the other states they are organized under the state banking law, and are essentially state banks. Trust companies are organized under state laws and are subject to examination and supervision by the banking department of the state in which they are doing business. Their powers and restrictions vary in accordance with the laws of their respective states. Speaking generally, they have a much broader scope as to the kinds of business they are permitted to do than either state or national banks. Their power to act as trustees for individuals and corporations gives them a field of operations which has in many cases proved to be a very profitable one.

They are generally restricted as to the investment of their capital, but not as to the investment of their surplus, and a result of these restrictions has been that in the organization of these companies and in such increases of capital as are made from time to time it has usually been found advisable to have a paid-in surplus

large in proportion to the capital. For this reason the stocks of these companies ordinarily sell at prices which to the casual observer look much higher than they really are, because these prices are expressed in percentage of par value and not in percentage of book value. For example, if a trust company has a capital of $1,000,000 and a surplus of $3,000,000, its book value is 400, and if its stock sells at 500, its price is really no higher in proportion to its net assets than the stock of a company having its capital paid up in full, but no surplus, would be at 125.

As these companies differ widely in the proportions of the various kinds of business done, an intelligent analysis of their statements requires a much more intimate knowledge of the special conditions under which each individual company is operating than in the case of either state or national banks. As very full reports are made to the state banking department, however, the necessary information for such analysis is usually obtainable.

Life insurance companies. The stocks of these companies need not, as a rule, be given much thought from an investment point of view, as the mutual companies have no stock and the present tendency of stock companies seems to be toward mutualization. In the case of the successful stock companies, moreover, the dividends which may be paid upon the stock are usually limited by law, and the selling prices of these stocks are ordinarily governed by considerations entirely apart from their pure investment value.

Fire insurance companies. There is a large and attractive field for investment in the stocks of these companies for the investor who can afford to take the necessary risks of the business. For it is a business which is in its nature profitable but hazardous. Through the law of averages the ordinary ratio of loss to risk can be pretty definitely established, but there is the ever-present danger of the occasional great conflagration which may wipe out in a few hours the accumulated profits of a number of years of successful business. Conservative management will, of course, by a proper distribution of the general risk over a wide territory guard against this conflagration hazard as a real danger to the solvency of the company, but the tendency of insurable value to congestion in narrow areas is so great that a certain amount of this risk seems to be necessary in the successful conduct of the business.

On the other hand, the fact that premiums are paid in advance

gives the companies the use at all times of a large fund in addition to their own capital and surplus, so that in most companies the investment feature of the business is almost as important a factor as the underwriting feature.

In the investigation of an investment of this class, then the investor will do well to study the record of a company through a series of years both as to its underwriting experience, the percentage of expenses and losses to premiums received, and as to its investment experience, and the percentage of income other than premiums to the total fund in hand. The data for such analysis is usually available, as these companies are under state supervision and are required to make annual reports; and there are unofficial compilations, readily obtainable, which give these items in comparative tables extending over a series of years.

Surety and casualty companies. The investment features of these stocks are in general similar to those of fire insurance stocks, except that the conflagration hazard is in their case replaced by the panic hazard.

Title insurance and mortgage companies. The business of insuring titles to real estate and that of selling real estate mortgages guaranteed as to principal and interest, though entirely distinct in theory, are practically so closely connected that they are usually carried on by two affiliated companies, each of which serves as a feeder for the other.

As it is necessary that such companies should have large capital in order that their guarantees may command respect, and as their business is of necessity local in its character, and to be profitable must be done in large volume, such companies have, as a rule, confined their operations to the larger cities. In New York they have been unusually successful, and their stocks are regarded very favorably.

THE WRONGS AND OPPORTUNITIES IN MINING INVESTMENTS

By Francis C. Nicholas, Ph.D.,
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Because mining is so good, and so profitable, there are many who by deceiving seek gain unworthily; because righteousness is so good, and so desirable, there are many who by hypocrisy make false pretense; yet because of the hypocrites we do not turn from religious sentiments, and neither should we, because of the deceivers, condemn mining. The evils which have developed in mining investments are not because such investments are bad, but because they are so good that those who seek to gain by deception find in mining stocks a convenient medium for their operations. It is probable that greater loss follows the promiscuous use of capital in mining transactions than in any other form of investment, excepting only speculation on margin, though such dealings should perhaps be classed as gambling, and given no consideration among investments. If margin speculation is not to be considered as having a place among investments, then mining shares are the most uncertain. Yet among all investments, not anywhere are such profits obtained as in successful mining.

Here we have a series of anomalies, the best, and the worst in sharp contrast; and our object will be to consider these contrasting situations in an endeavor to find, if it may be, some basis on which to construct an outline for a better understanding of the advantages and disadvantages of mining investments. In considering our subject, losses must be noted in a great majority of instances, and these losses, while referable to numerous adversities, may be traced to three distinct influences: One, questionable practices on the part of some mining engineers and mining geologists; another, inefficiency, and often absolute dishonesty on the part of those who are officers, and managers in a mining corporation; and, finally, the most potent of all, lack of funds to carry the enterprise to a successful termination.

In taking up the consideration of these fundamental causes out

of which adverse conditions are developed to the detriment of mining investments, it is reasonable to criticize practices which are far too common among a certain class of mining engineers, and geologists. We claim in the profession to be a very virtuous lot of men, yet on the average, I suppose, we are no better, neither are we worse, than the ordinary run of humanity. Often a mining engineer, or mining geologist will want business; perhaps to obtain work will be an urgent necessity, and under the stress of such circumstances, how easy it is to make a low estimate of costs, and encourage people to undertake a mining venture. The engineer who estimates the cost of a railway section, or a bridge, or the architect who makes his specifications for a building must be exact, and accuracy is expected; but in mining there is always an element of uncertainty, and this affords a convenient excuse, if one wishes to take such an advantage. The mining engineer, or the mining geologist, was not dealing with known conditions, always an excuse can be found, and the temptations to underestimate the cost of mining are ever present. Low prospective costs, and exaggerated expectations, have started many a mining enterprise on a series of adversities. Excuses are plenty, worse things are constantly done in ordinary business; a little encouragement to get the people in, that work may be started, they will put up some money later rather than lose the investment; people are always slow to rule on a bad account; if they were told all at the start, they might not take the proposition, and the mining man wants employment. He assures himself that the mine will make handsome profits in the end; it is only good business to get the work started; the people will make money enough after a time when the mine is developed, though they may be kept on the anxious seat for quite a period. Where an engineer has once surrendered to the temptation, and obtains business by underestimating costs, and exaggerating expectations, worse acts usually follow. When I was a very young man, I had a call to some work on a proposition where the engineers had underestimated, yet in spite of this the enterprise was well accredited, and prominently before the public. The work I had was of minor importance, part of my duties relating to supplies, and I promptly expressed my disapproval of the operations. Prices were entered on the vouchers at considerably higher rates than actual cost, and a surplus of material was always called for in the

daily requirements, but if supplies were left over they were used the next day though the full daily allowance was entered on the vouchers as new material required. All the allowances were liberal, there was a good saving for somebody, and it was not for the mine account. I protested against this kind of work, and resigned my appointment. It might be more correct to say that I was fired, and told to go home to my mother, that I would never make any money at mining. In this I am happy to say that those who were in charge of the proposition were decidedly in error. Another thing is very certain, the enterprise on which they were engaged was a disastrous failure. I heard later that they had saved something like a hundred and fifty thousand dollars before the stockholders grew tired of putting up more money on estimates which were far from adequate.

This is an aggravated case of real dishonesty on the part of men who did not profit in the end, and were finally ordered out of one prominent banking house, and were almost bodily kicked out of another. Being men of extravagant tastes, they were out of money after a time, and since then have not been of much use to themselves or anybody else. It gives me some satisfaction to state that these men were of the persuasive variety among mining engineers, the self-dubbed knights and chevaliers of the profession, who assumed the name, but had no real authority for the distinction of mining engineer. Let no one suppose from this that a mining engineer, or a mining geologist cannot be self-made. Many of our best men have worked their way by hard, faithful application, and by their labor have reached positions of responsibility because of the excellence of their work. Such engineers are often eminent in their superiority over others who have had the advantages of early technical training.

The results which follow an estimate made too favorable by a mining engineer anxious to obtain work can be readily understood. The engineer is given employment, and in time, probably before very long, more money is required, urgently needed in fact, for without it work must be stopped and all the investment lost. Appeals are made to the stockholders, but those who have purchased the shares will, under such circumstances, become suspicious, and most do not respond; the enterprise flounders along for a time, and then as a usual result collapses, and the investors have lost their money. The

mine may have been good, but the necessary work to secure returns could not be completed, and the effort ended in disaster. Such failures are all too frequent; and here the investor in mining stocks finds one of his greatest difficulties because it is hard to judge the worth and accuracy of an estimate made by a mining engineer, or a mining geologist. One thing an investor can do, look up the record of the man who makes the report and estimate. If he has been connected with successful mines, and if he has kept his clients out of unsuccessful ventures, he is a good man to follow; but if his work has been in error, and his estimates inaccurate for others, though he is ever so learned, it might be well to have a care in risking money on his recommendations.

In considering a mining proposition, it should be remembered that in every instance the reports of men skilled in three distinct branches of the profession are desirable; and that to become a master of more than one distinct branch of a profession in these days of amplification, and detail, would seem a heavy burden for a single life. Yet in many instances, mining engineers attempt to be geologists, chemists, and engineers all in one, though the requirements for each subject are technical, and necessitate different work in training and thought, in order to attain proficiency. It is probable that the multiplicity of subjects, and consequent variations of detail with which the mining engineer attempts to deal, cause many an unfortunate, but honest inaccuracy in estimating the costs to be incurred in order to obtain results from a mining property. The geologist requires years of study, and field observation to attain proficiency; the chemist and metallurgist must give long attention to patient study, and experiment, in order to accurately prescribe the treatment an ore may require, and the engineer must work, and study the problems of construction, maintenance, and practical mechanics before he can, with assurance of good results, design, and operate the equipment and machinery which a mine may require. It would be a rare genius indeed who could combine all these technical branches of the mining profession in the operations of one person. Many attempt it, but few succeed, and in most instances the mines they endeavor to operate are dismal failures, for always some unexpected or unforeseen condition develops which prevents success. The engineer makes excuses, but the fact

is he did not know what he was about, having attempted too much, and disaster is the natural result.

It is correct to state that the best and most successful mine operators and companies maintain technical men in the three departments. The mining geologist explores, opens the mine, and exposes the ore bodies; the chemist and metallurgist tests the ores, and prescribes the treatment which will result in the best returns. These two having finished their work, the mine is turned over to the mining engineer, who designs his machinery, and equipment, to meet the conditions which have been proven, establishes the construction, and operates the property; calling on the mining geologist, when required, to trace out and uncover the ore bodies; and on the mining chemist to ascertain from time to time whether changes have developed in the character of the ore which requires modifications in its treatment in order to obtain the best results. Under such careful operations, a mine will not be worked to disadvantage; neither will operations be started, or work maintained, under conditions which are not favorable.

I have frequently been asked by students which branch of technical mining work will probably result in continued profitable employment. I have always advised the mechanical work. A mine is examined, the ore bodies opened and the kind of treatment prescribed once, in most propositions; but the property will be worked three hundred and sixty-five days in the year, and in many instances during the nights as well; as a consequence the mechanical and engineering requirements for the work cause a greater demand, and offer greater opportunities, for steady and profitable employment.

To the person who invests in mining stocks the question of whether efficiency is shown by the organization soliciting the use of his money, is of great importance. Fortunately this question is not difficult of solution. If the efficiency is good the corporation will be able to refer to technical men of standing who will regularly report the progress of the work. If a mining enterprise asks for support, and cannot give proof that its work is on an efficient basis, through the reports of technically trained men, one good reason is develped which should be sufficient warning against the proposition. The merest bungler may have luck in a mining venture, yet it is well to remember the technicalities of mining, and not trust

to luck, for luck is a fickle guide leading, with rare exceptions, to nothing but disaster and ruin.

We have considered questionable acts on the part of professional men, and lack of skill at the disposition of those who conduct mining enterprises: these are potent influences leading to disaster in mining operations; but there is another, and more disastrous cause which leads to loss, and this is the lack of funds to carry an enterprise to success, so palpably evident in the great majority of mining propositions asking investors for the use of their money. Where funds are lacking losses result, not because the mine lacked merit, but because money was not obtained in sufficient amount to carry the proposed operations to a successful termination. In almost every instance, where shares are offered for sale, the lack of funds is demonstrated because the offerings of shares are made coupled with the statement that treasury stock is being sold to provide a mill, to develop the mine or for some other purpose. Details vary, but the basis of the proposition is always the same, sales of stock are to provide the funds to make the mine profitable. In such offerings, two conditions are self-evident; one that the mine as it stands is not productive, the other that except sufficient shares are sold it cannot become productive. In such propositions the investor is invited to participate in all the risks of mining, coupled with the uncertainties of raising money; certainly not a very favorable proposition. It is more unfavorable, than will appear when first considered, because of the fact that mining stocks are very difficult to sell, and that most stock selling propositions are forced to meet their general expenses out of the proceeds of the sales of the shares which are being offered. Usually returns do not come in rapidly enough to meet these requirements, and provide the money needed to work the mines, and this being the case, the purchaser of a mining stock is not putting money in a mine, he is simply providing funds to maintain the stock selling end of the proposition. The managers of such enterprises are prone to state in their offerings that they do not receive salaries, but they do have expense accounts, and these amount to the same thing, in fact they usually amount to a little more.

No investor should be caught in this game. Where a proposition offering shares betrays its financial weakness by stating that the officers are philanthropic, doing their work

for nothing, and that the corporation is offering shares to provide the means for developing work which those principally interested in the company are not financially able to do for themselves, then the investor should remember that the chances that the financially weak men will ever obtain the money they seek by stock selling are so remote that the prospect is poor indeed; and most probably the improvements will never be secured, because the money given for shares will go into the expense account to gradually disappear in expenditures for the maintenance of those who manage the proposition. Such a game can be worked for some time, the managers live, and get along; but the money comes in too slowly, in the vast majority of instances, to provide for more than the expenses of the executive side of the corporation. Under such circumstances the proposition can result only in loss for those who may invest, and when an offering of this kind is presented, investigation from an investor seems scarcely necessary, the disadvantages are self-evident. If investigations are undertaken, in regard to philanthropic propositions so frequently offered in which those who manage give their services without compensation, the investor might well ask what proportion of the prospective product of the mine is represented by the shares offered for sale. If the stock book were examined, it would, in most instances, be found that only from ten to twenty-five per cent of the shares are available for sale, and that these shares must provide all the money to operate the mine, the promotors and managers taking the balance. On this basis the count is, one for you the investors, and three up to nine for us the managers and promoters—not a very fair proposition, and one which investors can most assuredly let alone, and in which they find it an advantage not to have participated.

It would seem that all the influences of questionable financiering had settled as a blight over mining enterprises, yet always there is a restless energy manifesting itself in the eager search for mines, and the desire on the part of many persons to participate in mining enterprises. It is unquestionably an advantage to civilization that this is the case, for we could not exist without the products of the mines. Coal for our fires; iron, copper, and other metals for utensils and machinery; oil to light our lamps, materials for construction, and gold to supply a medium by means of which the complicated relaticns of commerce can be sustained—all of these we must

have, or our civilization will cease to exist; and perhaps it is well that we risk and dare so much in mining ventures, for were it otherwise it might be that the mines would remain unoperated.

It is not mining, but the abuses of mining which are worthy of public censure. To sell mining shares is right and proper; he who succeeds in establishing a mine is a public benefactor; and there are many mining enterprises so organized that they are worthy of all praise. Especially is this true of mining propositions put forward on a subscription basis, with nothing to be paid until enough money is subscribed, and pledged, to carry out the specifications of competent engineers. Such subscriptions offered for a mine which has been examined by a suitably qualified mining geologist, are in every way desirable, and participation can be taken with confidence; though the investor should always remember that even where the greatest skill is exercised, mining can never be entirely free from risk and the vicissitudes of unknown conditions, consequently no one should, under any circumstances, put money in a mining venture which is essential to him. Money which represents conveniences can be risked, money which is required for essentials should never be put at hazard; and mining is, and always will be, a risk. That it is a popular risk is proven by the diversity of contrasting human influences with which it is involved. We find the multi-millionaire rich from the product of his mines, and the ruined prospector begging for a little money with which to sustain life, while he once more goes in search of a mining prize. We find the respected bankers and brokers of the great stock exchanges trading in shares of mighty combinations of mines, and in the same cities questionable promoters, and stock sellers, offering doubtful shares in propositions of elusive promises. We find also esteemed professors, eminent geologists, and noted mining engineers, in sharp contrast with dishonest graduates, underestimating to obtain a job, and grafting to secure profits; and the so-called mining experts, picturesque men who do their mining in bar rooms and hotel corridors; and the adventurers claiming knowledge unworthily with glib pretense in order to obtain money on propositions where no values exist.

This is mining, the daring, the enthralling; where in varying results examples are found of affluence and starvation; achievement, and failure; honors, and crimes—all struggling and

striving together; and the prize is wealth, glittering magnificent wealth. Is it any wonder that people buy mining stocks? Consider a moment how great is the incentive. Most men in ordinary circumstances will die under the yoke of their occupations, or will reach a time when, after a life of labor which has produced only enough for a decent maintenance, they can work no more, and must become charges on the indulgences of others. Thus in most lives it must be, because in these days of competition, exactions, and high costs few men can earn and save a competency. Under such circumstances, the chances of mining where a little placed at risk can produce, and frequently has produced, a competency, must always be alluring. The opportunity is real, a little money is risked for the chance of obtaining so great a prize, and it is reasonable and right that the risk should be taken; but not in response to seductive enticings from designing men. The risk should be judiciously taken, with the full knowledge that an element of chance must attend all mining ventures, and that nothing should be placed at hazard, excepting such amounts as can be lost without disaster. Before taking the risks one should require to be shown proofs that the proposition is in capable and honest hands.

To give such proofs adequately the mine must be reported on, and recommended as desirable by a competent mining geologist. The prospectus must show plans and specifications by a competent mining engineer, stating what amounts are required for improvements in order to obtain results, and his record must show that he has been correct in previous estimates. Those who are to manage the enterprise must show that they have at their command reliable men possessing technical skill, and finally the most important of all, those who are interested in the enterprise must be able to show that they who invest will be associated with men of sufficient wealth to carry the proposed operations to a conclusion; or they must demonstrate the validity of their proposition by asking only that money should be subscribed payable on condition that enough is pledged to operate the proposition, and bring the proposed work to a conclusion. Such conditions being demonstrated, and investors taking only the propositions offering suitable proofs, mining investments would tell an entirely different story. Yet losses would be made, for where a great profit is to be had there must be a corresponding risk; but in mining, if technical skill, honesty and sound financial

methods are made available to investors, the chances for success are much greater than are the chances of a failure. Yet, though theories may be advanced, and rules of procedure published, the wiles of those who seek to obtain money by questionable methods will always be an adverse influence among mining propositions; and it is a matter of grave concern that so many people should lose money.

So serious is this matter that it has received attention from our law-makers, and means have been provided in easy legal procedure to call to a judicial accounting any group of men who lose the money invested in a corporation which was under their management. To lose money in honest effort is no crime; and if only it were an established custom in our country to invoke the law, and require an accounting before the courts wherever money is lost in corporations, those who sell stocks, and manage enterprises dishonestly, would be more careful. To men who lose corporate money in honest effort the accounting would be a benefit through which they would be cleared of reproach; but if dishonesty, waste, or extravagance were shown, punishment would be meted out, and would be richly deserved. Investors would by taking stern measures, and by calling to account every corporate failure, render a service to their fellow citizens, to their country, and to themselves, because with a few examples of stern justice the whole fabric of misrepresentation would become too dangerous a proposition, and investors could make money through the purchases of stocks. It is to be feared, however, that American investors will remain submissive under loss. "Like lambs led to the slaughter," they will bleat a little over their misfortunes, but that is all. Promoters and stock manipulators will sneer derisively, and the game will go on. Mining stocks will probably continue the principal medium for seductive wooings to charm the dollars from needy pockets, and mining, one of the greatest, most essential, and most profitable among enterprises will still be spoken of as a reproach. This will not always be: people are becoming educated in finance, influences are abroad in our land through which mediums for instruction will be developed, we may be sure that a change is coming; and that presently, in matters relating to mining investments, the wrongs of the past will be righted in the opportunities and benefits of the future.

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NOTE: Among the various bibliographies prepared by selling agencies special mention should be made of the bibliography on financial works prepared by Mr. Roger W. Babson, Wellesley Hills, Mass. This bibliography is especially valuable on account of the references to foreign publications and the various manuals, handbooks and directories.

BOOK DEPARTMENT

NOTES

Alston, L. *Modern Constitutions.* Pp. viii, 79. Price, 90 cents. New York: Longmans, Green & Co., 1909.

This is a brief analysis of the constitutions of the leading states of the world. The short chapters are clear, but the comparisons are in some cases forced.

Banfield, E. J. *The Confessions of a Beachcomber.* Pp. xii, 336. Price, $4.00. New York: Appleton & Co., 1909.

Bellom, M. *Les Questions Ouvrières et la Science Actuarielle.* Pp. 101. Paris: H. Dunod et E. Pinat, 1909.

von Böhm Bawerk, E. *Positive Theorie des Kapitales, dritte auflage.* Pp. xxii, 171. Innsbruck: Verlag der Wagner'schen Universitats-Buchhandlung, 1909.

This is the third revision of books one and two of the "Positive Theorie." Its departure from the text of former editions is mainly in two places. The discussion in the third chapter of Book one on "The Competing Conceptions of Capital" has been greatly lengthened owing to the appearance, since the publication of the last revision, of a considerable amount of new literature on the subject by Clark, Fisher, Tuttle and Fetter. The second change is the insertion in book two of a wholly new chapter entitled "An Important Parallel Phenomenon to Indirect Capitalistic Production."

Brand, R. H. *The Union of South Africa.* Pp. 192. Price, $2.00. New York: Oxford University Press, American Branch, 1909.

South Africa has recently had focussed upon it the attention of students of comparative government. The developments which have marked the almost unprecedentedly swift disappearance of sectional jealousies have been followed with unusual interest. The appearance of this small volume is for this reason especially opportune. Mr. Brand was secretary to the Transvaal delegates at the South African National Convention and is therefore in a position to speak with authority of the work done. Unfortunately, the proceedings of the convention are still covered by the injunction of secrecy, so that much of the most interesting material is still unavailable. The analysis of the framework of the new government is clear and the historical development leading up to the formation of the responsible government is well done though brief. The last three chapters forecast probable future developments.

Brewer, I. W. *Rural Hygiene.* Pp. 226. Price, $1.25. Philadelphia: J. B. Lippincott Company, 1909.

The book discusses systematically the problems of rural hygiene. The dwellings, schools, water facilities, food and diet of the country people are each

analyzed in turn. The last half of the book is devoted to a discussion of the various forms of contagious and infectious disease. While rural problems are considered primarily, the ultimate purpose of the book is the shaping of a higher, saner form of life in the entire community.

Brooks, J. G. *The Conflict Between Private Monopoly and Good Citizenship.* Pp. 43. Price, 50 cents. Boston: Houghton, Mifflin Company, 1909.

This little volume is a plain, sane and incisive analysis of the effect of private monopoly on good citizenship as evidenced in America. The author believes that "the people are at last convinced that these monopolies are more powerful than government." He contends that "about the ordered and constructive purpose to curb the abuses of our ill-regulated private monopolies, there should be no disagreement among sane and disinterested men." The book is radical in that it goes to the root of things and leaves no stone unturned. It is conservative in that it maintains that our present problem is regulation. We must first prove this a failure as a remedy before other measures are taken. Withal, it is optimistic as to the outcome.

Buckley, J. M. *The Wrong and Peril of Woman Suffrage.* Pp. 128. New York: F. H. Revell Company, 1909.

Dr. Buckley deals primarily with the probable results of woman suffrage, as he sees them, rather than with the fundamental reasons for or against suffrage. Historically he confines himself to the discussion of unsuccessful attempts made to attain it in France, England and the United States. Notable opinions are next quoted on the subject, and then the arguments against equal suffrage are presented. For the woman who limits herself to her so-called natural sphere, Dr. Buckley insists that no legal protection is necessary. She can protect herself and society sufficiently by her femininity, the most prominent attribute of which is her sweetness, far better than by assuming the manly qualities of "strength, power and majesty." The power of decision upon what is "natural" for men and women is apparently confined to men such as the writer. It is difficult to obtain a clear outline of the trend of thought of the writer either from the table of contents or the book itself, but the fundamental idea seems to be that suffrage would be a "reform against nature" as nature is conceived by Dr. Buckley, and would, therefore, bring "irreparable calamity" to the state that instituted it.

Buschkiel, R. *Die Rentabilität der Sächsischen Staatseisenbahnen.* Pp. 81. Stuggart: J. C. Cotta, 1909.

Cambridge Modern History. Vol. VI, The Eighteenth Century. Pp. xxxiii, 1019. Price, $4.00. New York: Macmillan Company, 1909.

Cameron, Agnes D. *The New North.* Pp. xv, 398. Price, $3.00. New York: D. Appleton & Co., 1910.

Casson, H. N. *Cyrus Hall McCormick, His Life and Work.* Pp. xi, 264. Price, $1.60. Chicago: A. C. McClurg & Co., 1909.

Coleman, G. W. *Searchlights.* Pp. vi, 102. Price, 75 cents. Boston, Mass.: The Golden Rule Company, 1910.

This volume comprises a number of editorials written by the author for "The Christian Endeavor World." These articles represent the viewpoint of a business man upon some of the most vital religious and social questions of the day.

Conyngton, Mary. *How to Help.* Pp. x, 367. Price, $1.50. New York: The Macmillan Company, 1909.

In the revised edition of her book, "How to Help," Miss Conyngton again offers us a valuable handbook for assistance in the practice of charity. While containing much that may help the professional, the book is primarily intended as "a practical, concise manual for the use of those men and women who, having no professional knowledge of charitable work, yet feel responsible for the right treatment of the appeals for help which are certain to come to them."

Out of her large experience, the writer brings useful knowledge and a helpful attitude. The new edition is in general unaltered, though some improvement might well have been made in the order and proportion of some of the chapters. The latest opinions have, however, been given, and in revising emphasis has been laid on the importance of preventive work and the need of social justice rather than philanthropy or charity.

Dawbarn, C. Y. C. *Liberty and Progress.* Pp. xvi, 339. Price, $3.00. New York: Longmans, Green & Co., 1909.

Devine, E. T. *Social Forces.* Pp. 226. Price, $1.25. New York: Charities Publication Committee, 1909.

This little book contains twenty-five of Professor Devine's editorials out of the many which he has written for "The Survey." The selection which has been made is a most happy one, the editorials selected discussing subjects of permanent interest. The essays have such decided merit that there is good excuse for embodying them in a permanent volume. No writer in applied sociology to-day expresses views that are more sane and more carefully based upon scientific fact than Professor Devine. While Professor Devine does not call himself a sociologist, he has an insistent sociological viewpoint, that is, he views these problems from the standpoint of the organization, development and functioning of society as a whole. Many of his essays, like the one for example on "Religion and Progress," even contain suggestions for sociological theory which the social theorist should by no means neglect. The book is felicitous in style and vigorous in thought.

Drysdale, C. R. *The Population Question.* Pp. 94. Price, 6d. London: G. Standring.

Eliot, C. W. *The Religion of the Future.* Pp. 62. Price, 50 cents. Boston: The Ball Publishing Company, 1909.

This much discussed lecture attempts to formulate a religion based on "a humane and worthy idea of God, thoroughly consistent with the nineteenth century revelations concerning man and nature." These revelations clearly

involve certain eliminations from the older creeds. Many will question, however, whether all of Dr. Eliot's eliminations are thus necessitated. Plato and Paul, modernized and knowing all that he knows, would doubtless modify their doctrines, but would still retain as a basis for doctrine a richer religious experience than the ex-president of Harvard discloses. Using the convenient categories of Professor William James, Dr. Eliot is one of the "once-born" only. Professor James finds the experience of the "twice-born" type more interesting and profound. From this standpoint the lecturer's treatment of some of the prime functions of religion, *e. g.*, "communion with God" and consolation in sorrow, would seem singularly lacking in these qualities. And it is hardly scientific to assume that some of the experiences of the "twice-born" may not be among the significant insights into the nature of reality.

Elson, H. W. *A Child's Guide to American History.* Pp. v, 364. Price, $1.25. New York: Baker & Taylor Company, 1909.

The title of this volume is a misnomer. It is not a "guide" in the accepted use of that word, but rather an anecdotal history for children. The author has not attempted to present a connected narrative, but to relate incidents and adventures which he trusts will prove so attractive to children as to stimulate more extensive reading of the history of our country. The title of one of the chapters, "Odds and Ends," would apply equally well to the entire work, as no particular principle seems to have been followed in the selection of the anecdotes other than their intrinsic interest. Most of the stories are well authenticated, but a few have been admitted that are based chiefly on tradition.

There are sixteen full-page illustrations, several being copies of paintings that are of little historical value, being the creation of the imagination of the aritist, as, for example, "The Landing of the Pilgrims." Fortunately, however, others are from contemporary prints or photographs, the last being a topographical map of the Panama Canal.

Emerson, H. *Efficiency as a Basis for Operation and Wages.* Pp. 171. Price, $2.00. New York: The Engineering Magazine, 1909.

Appearing first as a series of articles in "The Engineering Magazine" during 1908 and 1909, the various chapters of this work are now presented in a more permanent form, revised, amplified and in great part rewritten. The author has not—most excellent omen—wasted his own or his reader's time in the usual tedious historical and sociological preliminaries, but comes directly to his subject in two short, crisp chapters dealing with "Typical" and "National Efficiencies," and proceeds almost immediately to set forth his theories and proposals of "Line and Staff Organization," "Standards," and "Their Realization in Practice." With these two weapons this modern industrialist eliminates wastes, increases production, raises wages and reduces productive cost. One may occasionally disagree with him as to his methods,—never as to his fundamentals. He proves his case against our general industrial inefficiency to the hilt. And the refreshing sanity of those industrial

reconstructions which he proposes, and which he describes as having actually been carried out in large industrial institutions, will appeal immediately to the thoughtful engineer. The style is brisk, concise, terse, and the work will take a high place in the specialized literature of the engineering world.

Enock, C. R. *Peru.* Pp. xxxii, 320. New York: Charles Scribner's Sons.
The industry of Mr. Enock seems to have no limit. In rapid succession he has published three very useful books on Latin-America. The present work, dealing with Peru, is probably the most useful of the series. The first nine chapters are devoted to a historical survey which, while necessarily brief, shows that the author has more than a superficial knowledge of Peruvian history. The best portions of the work, however (chapters 11-14 inclusive), deal with the social system. In this portion of the work the author is dealing with new material, and has made a real contribution to the subject. The study of that peculiar type of Peruvian known as the "*cholo*" is particularly well done, and indicates that he has been able to appreciate more clearly than any previous writer the position of this interesting class of Peruvian society.

In the final chapters of the work (chapters 15-21 inclusive) the author deals with economic and commercial conditions, and also sets forth with great clearness the financial history of the country. The final chapter contains an excellent series of travel notes, which cannot help but be of service to those intending to visit Peru.

To the book is attached a brief bibliography and an excellent map of the country. It is by all odds the most satisfactory work on Peru that has as yet appeared and will be welcomed by every student of Latin-American affairs.

Fanning, C. E. (compiled by). *Selected Articles on the Election of United States Senators.* Pp. 118. Price, $1.00. Minneapolis: The H. W. Wilson Company, 1909.
The chief sources of information placed at the reader's disposal by this book are contained in the "Arena," the "Forum" and the "Congressional Record." Well selected series of reprints from these sources make the chief argument on both sides easily available. There is in addition a fairly exhaustive bibliography, which points the way to further investigation. The references showing how a change is being introduced in the way the constitution actually works are especially valuable. Like the other volumes of the series, this book will be found of great value to debaters because of the access it gives to the controversial literature of the subject.

Flick, A. C. *The Rise of the Medieval Church.* Pp. xiii, 623. Price, $3.50. New York: G. P. Putnam's Son, 1909.
Professor Flick traces the history of the Church from the time of the apostles to the thirteenth century—the time when the Papacy was at the height of its power. This covers the period when the Roman Church was developing its present elaborate framework. The working out of tendencies shown even in the early history of Catholic doctrine is well done. When the book closes

the dramatic services, discipline, doctrine, fixed and universal ritual and liturgy have taken almost the form in which we know them to-day.

The object of the volume is evidently not to add another to the list of works that are valuable only for use in theological seminaries, but to present church history as a cultural study adaptable for college classes. The institution as a part of civilization is traced rather than the growth of dogma as a system of thought divorced from every-day life. Especial emphasis is placed upon the marvelous formative influence which the Church has had upon the character of our western civilization. To accomplish this many of the interesting collateral developments in church life have been omitted so as to bring out the continuity and unity of the outline.

There is evidence throughout the book of extended study. Most of the work in preparation was done in Europe. The greater number of references, however, are to sources in English—a plan justified by the object of the book—to make the material of use not primarily to the research student, but to undergraduate college classes.

Fuld, L. H. *Police Administration.* Pp. xix, 551. Price, $3.00. New York: G. P. Putnam's Sons, 1909.

Critical studies of this character are too conspicuous by their absence. The detailed research necessary for such a work is still only too often discounted as "academic." Mr. Fuld has given an excellent exposition of the duties, powers, functions and problems of the modern police system. Familiarity with the police system of New York City makes the discussion one which has the much-to-be-desired practical character.

It is a fashion to villify the police. To the average man they often represent a corrupting influence in the community, social life and politics. Mr. Fuld insists, as has ex-Commissioner Bingham before him, that the majority of both officers and men are honest, self-respecting and efficient. The cause of the abuses which attract so much public attention lies partly in our system of selecting police commissoners—who, as a rule, are not interested in giving good service, partly in our legislative bodies, both state and local, which pass a host of measures unenforceable or disapproved by the local population. Professional politicians, who favor lax administration of the law, add another undesirable element. The result is that whether the laws are enforced or unenforced the police are in a false position with the community.

The book opens with a brief review of police systems ancient and modern. There follows a review of methods of organization and selection covering eighty pages; the duties of policemen, their discipline and equipment, one hundred and thirty pages; the special questions that complicate the police problem, especially in America, one hundred pages, and finally a detailed exposition of the New York organization, eighty pages.

Throughout the American organization of the police force is subjected to severe criticism. "The United States is the only country in the world which has adopted the principle of uncontrolled municipal police management." The establishment of a state police in certain cities is also an

expedient wrong in principle. Nevertheless, Mr. Fuld is not ready to advocate a state police system for both cities and rural districts—he fears the influence of corrupt state politics. He thinks that state inspection of urban police might bring an improvement. It is curious that no discussion of the experience of Pennsylvania with a state constabulary supplementing the local police is given.

Galton, Francis. *Memoirs of My Life.* Pp. viii, 339. Price, $3.50. New York: E. P. Dutton & Co., 1909.

It is interesting to secure at first-hand a story of the life and development of "the Father of Eugenics." In this autobiography Mr. Galton has brought out the phase of his life which would be of greatest interest to a student of hereditary and environmental influences. Starting with his parents and his childhood, he describes his school years, his studies and attitude toward them, his travels, his interest in natural history and his early attempts to develop processes which would determine the extent and character of heredity. One of the most interesting sections of the book is that dealing at length with the influence of the British Association on the development of scientific study in Great Britain.

The last three chapters of the book are devoted to a discussion of human faculty, heredity and race improvement, special emphasis being laid upon the changes which led Mr. Galton to take special interest in the development of the race. In the last chapter the author deals with the origin and present importance of eugenics, holding that "a democracy cannot endure unless it be composed of able citizens; therefore it must in self-defence withstand the free introduction of degenerate stock." The autobiography does not cast any further light upon the problem of eugenics, nor does it introduce any new elements which were not already published, but it does combine in a charming way the life and works of the author.

George, W. R. *The Junior Republic.* Pp. xii, 327. Price, $1.50. New York: D. Appleton Company, 1909.

The story of the birth and development of the George Junior Republic is here detailed in a most fascinating way by the founder of the republic himself. The idea developed from the application of various methods of dealing effectively with a group of unruly slum children who annually enjoyed the benefits of a summer outing at Freeville, N. Y. Mr. George concluded that the outcome of this work was unfavorable and lacked constructive results. He gradually applied a work test for benefits received by the children and authorized a system of limited self-government. The republic was at first established as a disciplinary agency employed only during the outing season, but was soon made permanent and operated throughout the year.

The problems of the new republic were numerous. A complete system of government was established which was based upon the laws of the State of New York and such local ordinances as the citizens might themselves enact. Accordingly laws were made, courts established, criminals convicted and imprisoned, and business of almost every description transacted precisely as

in the outside world. Both boys and girls were admitted, and the latter, after a struggle, finally obtained the full rights of citizenship. The republic has become a village composed of children sent there by the courts, brought by their parents or entering voluntarily. The method of organization is unique. Industrial training is secured through the carrying on of *bona fide* industrial enterprises.

The effects upon the great majority of children have been so stimulating and uplifting that the author hopes republics will be established in every state of the Union. Here should be admitted first those children most in need of training, but eventually all boys and girls for a limited time in order to give them some training in citizenship and self-government.

Grenfell, W. T., and others. *Labrador—the Country and the People.* Pp. xii, 497. Price, $2.25. New York: Macmillan Company, 1909.

Hillier, A. P. *The Commonweal.* Pp. xii, 162. New York: Longmans, Green & Co., 1909.

The author, an Englishman, maintains that "the industries of England were born, nursed and developed to a position supreme above those of all other nations under a system of deliberation and systematic protection." He asserts that England must now once again return to at least a moderate degree of protection. This he bases on the fact that during the greater portion of the second half of the British free trade period there "has been a continuous and large rise in our imports of manufactured goods and a stagnation or an actual fall in our exports of manufactured goods."

The abandonment of England's policy of free trade, which he aptly characterizes as a system of free imports, is urged for two reasons: First, because protection is necessary "to eliminate unfair competition, to give more security to capital invested in British industries and to increase the demand for labor," and, secondly, because this is an age of great federations, and he believes that a fiscal policy looking toward freer trade relations within the British Empire, as opposed to the non-British world, would be a great federal instrument. He recognizes the fiscal difficulty for the present in having absolute free trade in the British Empire, such as exists throughout the United States and Germany, but he feels that an extension of the principle of preferential tariffs within the empire will be a step in the right direction and the "best instrument at our disposal to-day" to bring about the desired end of a federated British Empire. Such a policy will make it necessary for England in her turn to guarantee to the colonies preferential advantages in her home market.

The author writes in a clear and convincing style. He belongs rather to the so-called historical school of economists than to the English classical school. He has made an appreciative study of both German and American fiscal systems. Of the latter he says, Hamilton's policy of protection has been "vindicated by a century of the most remarkable and enormous material and economic development that the world has ever seen."

Holland, T. E. *Letters to "The Times" Upon War and Neutrality,* 1881 *to* 1909. Pp. xi, 166. Price, $1.75. New York: Longmans, Green & Co., 1909.

The letters reprinted in this collection are of great interest to the student of international law. They deal with practically every phase of international law relating to war, and as they, in every case, discuss a concrete situation or a positive suggestion for action, there is about them a definiteness and clearness that could not be found in any general treatise. The book is, therefore, admirably adapted to be used as a sort of case-book as an accompaniment to the reading of a more continuous treatment of the subject. Many of the letters set forth principles of international law with greater clarity than could be found anywhere else in legal literature. Among the interesting subjects discussed are such as the following: Pacific blockades, the Venezuelan controversy, the United States naval war code, the Suez Canal, naval bombardments, coal for the Russian fleet, etc. Any reader who desires to inform himself about the present status of the discussions of international law relating to warfare will find this little volume the readiest means toward accomplishing his purpose.

Hutchinson, Woods. *Preventable Diseases.* Pp. vi, 442. Price, $1.50. Boston: Houghton, Mifflin Company, 1909.

This exceedingly useful volume brings again to our attention the modern triumphs of medical science and the growing willingness on the part of the medical profession to place in the hands of an ever larger group of readers a fund of scientific knowledge, expressed in simple and interesting terms. This knowledge is doing much to prevent and to cure disease. The distinguishing characteristic of this book, perhaps, is the novel and interesting manner in which the author puts us on familiar terms with diseases about which we have known little, and which in consequence we have dreaded much.

Dr. Hutchinson, in his chapter "The Body Republic," explains the modern cellular theory of disease. Its central idea is "that every disturbance to which the body is liable can be ultimately traced to some disturbance or disease of the vital activities of the individual cells of which it is made up." The optimism of the writer comes out strongly in the second chapter, when he discusses the natural inheritance of vigor and healthfulness. We hear much of hereditary powers of recovery, and yet the author asserts "that heredity is at least ten times as potent and as frequently concerned in the transmission and securing of health and vigor as of disease and weakness. These assertions of the first two chapters, the remainder of the book goes far to make clear from a concrete study of specific diseases.

Jowitt, Lettice. *The British Isles.* Pp. xix, 309. Price, 75 cents. London: A. & C. Black, 1909.

This is a collection of abstracts and excerpts from the work of many authors who have written about one phase or another of British geography. In general the selections are short, largely descriptive of scenery or sections

of special interest and representative of the best that has been written on the subject. The original reference is given in every case and a valuable bibliography is included. Taken as a whole the selections are well chosen and make a very interesting book, which tells much about the British Isles not to be found within the covers of any other volume.

Jürgensohn, Arved. *Weltporto-Reform.* Pp. 317. Berlin: Liebheit & Thiesen, 1910.

The author is the secretary of the Commercial Treaties Union and advocates a world-wide penny postage on the basis of the penny postage lately established throughout the British Empire and between Great Britain and the United States. The immediate object which he urges is the application of the domestic rate to foreign-bound letters in each country, but he further proceeds to show the need of uniformity and simplicity of charges. It is with him, however, not merely cheapness, but rather "that in the future both domestic and foreign territory shall be postally the same; that the entire world postal area shall become a domestic postal territory; that one schedule of charges may embrace the whole globe."

The author introduces his book with an account of the life of Rowland Hill, the initiator of the plan of national penny postage which was introduced in England on January 10, 1840. In a subsequent chapter he discloses a very interesting condition in China, which has a postal union of its own with most other nations, and in many cases much more favorable than the Universal Postal Union, so that the author calls China "The Most Favored Nation." In the tenth chapter he considers the "ways to the goal" of world penny postage. First the domestic rate must be applied in each country to foreign mail upon an average normal basis of approximately one penny for a unit weight. This leads to the discussion of a world postage stamp and a world coinage, upon a universal system. The book as a whole is thus a specialized treatise, but is of real and general interest to all students of public and international economics.

Langheld, W. *Zwanzig Jahre in deutschen Kolonien.* Pp. xii, 431. Berlin: W. Weicher, 1909.

Africa is a land of adventure par excellence. Major Langheld shows that it was also for him a land of service. To him his government and the natives both owe much. During his eleven years' service in German East Africa, 1889-1900, he helped to strengthen the hold of Germany upon that vast district and he made himself beloved by the natives through his skill as a physician, his fairness as a judge and his skill as a diplomatist in binding the natives to his country by treaties. He was active also in minimizing the inter-tribal raids which are the curse of the Central African district. The student of colonial affairs will find the story of the formative period in the history of the colony as portrayed by the author one not of less interest than the careers of Goldie, MacKinnon and Rhodes. There is at the same time a wealth of experience in big game hunting, exploration and native uprisings which appeal to the heroic. The latter half of the work,

covering the period 1900-8, deals with the author's service in Kamerun. The life led there is less primitive, but the description of the changes that are being wrought in the colony will do much to modify the opinions of those who are pessimistic as to the possibilities of the African colonies.

Latimer, Caroline W. *The Girl and Woman.* Pp. xviii, 330. Price, $2.00. New York: D. Appleton & Co., 1909.

The author's purpose has been to condense in popularized form the general material regarding the adolescence of girls, compiled by G. Stanley Hall in his "Adolescence." The product is noteworthy, for the author has presented in scientific yet popularized language a group of well-related facts concerning the physical, moral and mental care required by the growing girl. Particular note should be made of the chapter on Sex Education, which, while rather conservative, presents nevertheless an excellent statement of this little discussed and less understood subject. The material in this book deserves a place in the knowledge of every thoughtful child trainer.

Lea, H. *The Valor of Ignorance.* Pp. xvii, 343. Price, $1.80. New York: Harper & Brothers, 1909.

Unless radical changes are taken in our national policy of defense Germany and Japan will hold New York and San Francisco. This is in brief Mr. Lea's message supported by a wealth of hyperbole and allusions ranging from Psammeticus to the Mikado.

"In six cycles of decadence China has fallen into such sick corruption and internal desolation . . that the still hour has come when this ancientest kingdom shall make its solemn salutation to mankind indifferent in the noisy buzz of his (*sic*) diurnal night." We are in danger of the same fate. Japan has "disemboweled the two vainest and vastest empires on earth, causing the world to whisper in old and stale wonder." Our turn is next, and the author has given a series of charts showing how Luzon, Hawaii, Alaska and the coasts states will be snatched from us. Only more remarkable than the author's seriousness is the fact that a former lieutenant-general of the United States Army declares he does "not know of any work in military literature published in the United States more deserving . . attention . . than this."

Levy, H. *Monopole, Kartelle, und Trusts.* Pp. xiv, 322. Jena: G. Fischer, 1909.

The purpose of this book is to supply the need of a more complete discussion of capitalistic organization and trust formation in Great Britain. The author hopes also to have furnished the incentive for monographic studies of particular trusts.

The book consists of three parts, dealing respectively with monopoly in the pre-capitalistic stage, the early combinations of the competitive era, and organization of large-scale industry on monopolistic principles. Special emphasis is placed on the last subject, the others simply receiving a short historical treatment. After discussing the transition period, the author points out that trust formation in England made but little advance before 1900.

The development of sixteen of the most important trusts is then sketched. The last two chapters deal with problems of trust organization and of monopoly, and include a brief discussion of the general effects of the movement. Among the most significant results are the control of prices by strong monopolies, an advance in the prices of trust-made goods, and overcapitalization. Although principally a discussion of British monopolies, the book throws much light upon the nature of our own trust problem.

Lincoln, J. T. *The City of the Dinner-Pail.* Pp. 186. Price, $1.25. Boston: Houghton, Mifflin Company, 1909.

The author here contrasts conditions in Fall River, a "city of the dinner-pail," and Newport, a "city of luxury." He describes the characteristics of the industrial town, the busy population, the constant activity; discusses the value of the machine and its creative efficiency; points out the necessity from the standpoint of the worker of developing trade unions, and indicates the relation of the individual worker to the industrial system. The description of Newport is confined to a brief discussion of the luxury and grandeur of its social life. The work is intensely human. Its descriptions are balanced and sane, and while not scientific, will nevertheless prove of considerable interest to such of the public as are concerned with the questions of work and luxury.

Lobingier, C. S. *The People's Law, or Popular Participation in Law Making.* Pp. xxi, 429. Price, $4.00. New York: Macmillan Company, 1909.

Lyman, W. D. *The Columbia River.* Pp. xx, 409. Price, $3.50. New York: G. P. Putnam's Sons, 1909.

This superbly illustrated volume is a most creditable addition to the "American Waterways" series. The subject lends itself readily to the photographer's art, since the Columbia is by many regarded as the most beautiful scenic river on the continent. Certainly the author, in his selection of illustrations, has in no way detracted from its fame in that respect.

The book is both descriptive and historical: descriptive of the country through which the river flows, the stream itself, and the wonderful scenery, from the grandeur of the British Columbia mountains to the enchanting solitudes of Lake Chelan, and the ever beautiful Multnomah and Bridal Veil Falls; historical, in that it chronicles the leading events in the discovery and exploration of the river, the struggle for its possession, and the recent developments of industry and commerce along the course of the Columbia. In this historical part, which makes up most of the first two-thirds of the volume, the author has happily eliminated much of the tedious detail common to historical research, and as a result has produced, with accuracy and clearness, a readable, general account which anyone may enjoy. So skilfully has this story been woven that one part cannot be said to be more interesting than another; even the romance of the fur-trading days and of pioneer times cannot surpass the romance of the present, in the coming of the miner, the farmer and the relations to world's commerce, as here portrayed.

The last third of the book deals with the river itself and its scenic

wonders, these aspects being told in the form of a description of a journey down the river from the headwaters in the Canadian Rockies to the ocean. It is a description such as to arouse the envy of anyone who has not seen the country for himself; it is a masterful portrayal of a wonderul region.

Maunier, R. *L'Origine et la Fonction Economique des Villes.* Pp. 320. Paris: V. Giard & E. Brière, 1910.

Mead, Edwin D. (Ed.). *The Great Design of Henry IV.* Pp. xxi, 91. Price, 50 cents. Boston: Ginn & Co., 1909.

This English translation of the "Great Design" of the Huguenot prince, who in 1589 became king of France, and for the sake of the peace of his subjects became a Catholic in 1593, declaring that "Paris was well worth a mass," is published for the International School of Peace. It is very fittingly "the first of several volumes devoted to the classics of the peace movement which are to be added to the International Library. Eméric Crucé's "Nouveau Cynée," the first work to propose international arbitration, is announced for early publication, to be followed by Kant's "Eternal Peace."

Besides the historical introduction by Mr. Mead, the appendix contains the papers by Edward Everett Hale on "The United States of Europe," and historical passages from Sully's Memoirs, in which the history of the "Great Design" is set forth. The text of the "Great Design" is found in Sully, and the present translation seems to be all that could be desired.

Molesworth, G. *Economic and Fiscal Facts and Fallacies.* Pp. xii, 292. Price, $1.50. New York: Longmans, Green & Co., 1910.

This volume is a plea for the abandonment of England's present policy of free trade. To strengthen his case the author contrasts the widely divergent ideas held by economists and statesmen on commercial and fiscal questions, and exposes the fallacies of the modern free trade program. An exhaustive compilation of facts bearing on the economic conditions of several of the leading nations of the world is made, and contrasts are drawn between the results obtained under the two fiscal policies—those of free trade and protection. Comparisons of tariff figures, consular reports, rates of wages, rentals and prices of commodities are freely used to illustrate the main contention, that the policy of moderate protection has resulted in a corresponding increase in commercial values and industry, while at the same time it has relieved the weight of domestic taxation by throwing the burden upon the foreigner.

Montgomery, D. H. *Leading Facts of American History.* Pp. 512. Price, $1.00. Boston: Ginn & Co., 1910.

Morawetz, V. *Banking and Currency Problems in the United States.* Pp. 119. Price, $1.00. New York: North American Review Publishing Company, 1909.

The author feels that "the main problem of the National Monetary Commission is to devise an adequate means of regulating and of protecting the general credit situation, so as to avoid sudden and wide fluctuations in the

amount of credit available for the transaction of the business of the country." To accomplish this, he contends that central regulation is necessary, but that a central bank, such as solves the problem in Europe, is not practicable in the United States, as "the people could not be convinced that it would be desirable, or that it would be safe to give to any man or to any set of men the power to control the vast resources of such a bank, and to dominate all the banks and business interests of the country.

A plan of central control is set forth which obviates this difficulty and at the same time accomplishes the desired end. "Authorize the national banks to issue notes upon their joint credit and to control the uncovered amount of these notes by the joint action of the Secretary of the Treasury and of the managing board or committee elected by the banks."

"Under certain specified conditions, this association would then control the issue of notes, each bank in the association being permitted to take out and issue notes up to an amount not exceeding its capital. Redemptions would be effected by the use of a fund of twenty per cent of the notes issued, this to be deposited with the central association, which should also have the power to call for a greater deposit or redemption fund if necessary. The fund would be administered under the supervision of the Comptroller of the Currency, and would be used through a system of branch redemption agencies in the principal cities of the country."

The style of the book is popular, few technical terms being used not already familiar to the lay reader. The pages of the book are amply paragraphed and indexed, thereby aiding the reader at a glance to follow the general scheme of treatment of the subject.

Muller, E. *Die Rentabilität der Grobh Badischen Staatseisenbahnen.* Pp. viii, 69. Stuggart: J. G. Cotta, 1909.

Myers, G. *History of the Great American Fortunes.* Pp. vi, 296. Price, $1.50. Chicago: Charles H. Kerr & Co., 1910.

In this, the first published volume of a three volume work, the author presents considerable new and original material descriptive of economic conditions which existed in colonial times and which made for the accumulation of the wealth of the landgraves, traders and shippers of those early days. Part II, by far the greater share of the book, is given over to a very detailed exposition of the growth and present status of the great land fortunes of the United States. In this connection he writes at length of the Astor and Marshall Field estates. As in other works by the same author, the style is fearless and decidedly frank, and although nothing either good or bad is omitted from the discussion, the volume is, by no means, muckraking in character. References to sources of information, while frequent, are not as full or as numerous as is desirable in a work of this sort.

New York Society for the Prevention of Cruelty to Children. Thirty-fifth Annual Report. Pp. 115.

Complaints numbering 252,062 involving the custody of 740,245 children were received by the New York Society for the Prevention of Cruelty to Children

during the thirty-five years of its existence according to its annual report for 1909, which has just been issued. During the past year 15,499 complaints were received; 10,201 complaints were prosecuted, and 8,389 homes found or situations obtained for children.

Parsons, J. *Each for All and All for Each.* Pp. xiii, 390. Price, 1.50. New York: Sturgis and Walton Company, 1909.

The author's thesis is that advancing society continually creates larger opportunities for the individual and that, in like fashion, the services of individuals, particularly in times of crisis, have tremendous social consequences. The illustrations are naturally from history. The chapter headings are often obscure, for instance, Diffusion, Succession, Divergence. The intention is to strengthen faith in the importance of the individual. The general philosophy is sound, but it is hard to see just what class in the community will be particularly drawn to the book.

Phelps, Edith M. (compiled by). *Selected Articles on the Income Tax.* Pp. viii, 135. Price, $1.50; *Selected Articles on the Initiative and Referendum.* Pp. 164. Price, $1.50. Minneapolis: H. W. Wilson Company, 1909.

This handbook appears at a time when public interest in the income tax is at its height. The references are well arranged; the bibliography, while not exhaustive, contains all the material available in the average library. Technical discussions have been omitted. A number of well selected reprints, chiefly from the "Congressional Record," "American Journal of Politics" and the "Nation," are included. There is no attempt to classify references as affirmative and negative, but a brief statement follows each entry, showing the general attitude of the author.

Though prepared for the use of high school students, the volume containing the articles on the initiative and referendum is a valuable source of collateral readings for college classes. The most important recent discussions of the initiative and referendum are reprinted. Most of the material is drawn from the scientific magazines. All phases of the subject, from its operation in Switzerland and Australia to its applicability to American conditions, are presented. There is also a valuable bibliography. Debating societies will find this handbook indispensable for giving access to a much scattered but valuable literature.

Poe, C. H. *A Southerner in Europe* (second edition). Pp. 162. Price, $1.00. Raleigh, N. C.: Mutual Publishing Company, 1909.

The progressive editor of the "Progressive Farmer of North Carolina" went on a trip to Europe last year and wrote back to his paper fourteen letters describing his impressions of Europe. He sees the usual sights and some others, notably the fine roads, the fine stock and the fine farms of Europe. Especially was he impressed by the contrast between Southern agricultural methods and those of Europe. There are "no loose ends or ragged edges about European farming," he says, "no clods, no gullies, no weeds, no poor horses, no scrub hogs, no disgraceful tenant cabins." France he pronounced

a land of beauty, unmarred by one gully or galled spot or weedy patch or shackly cabin or turned out field, while of England and Scotland he said: "I have not in all my travel in England and Scotland seen more weeds and gullies than I have sometimes seen in a ten-acre lot in America." In conclusion he declares that the lesson the South has to learn is "to care for our resources as well as Europe cares for hers and to educate our people as well as Germany educates hers."

Reeder, R. R. *How Two Hundred Children Live and Learn.* Pp. 247. Price, $1.25. New York: Charities Publication Committee, 1910.

For some ten years Dr. Reeder has been the superintendent of the New York Orphan Asylum, one of the oldest and best institutions for children in America. During this time it has moved from crowded congregate quarters in the city to a beautiful site on the Hudson and into attractive cottages.

This volume is a record of the experience and observations of the author during this period. The account first appeared serially in "Charities and the Commons" and excited wide comment. It teems with evidences of keen insight into child nature. Give the child the proper incentive and almost anything can be done. Such topics as diet, play, industrial economics, moral and religious training and punishment are treated.

Everyone who works for children—particularly those who are trustees or otherwise responsible for children's institutions—should read this book. In its field there is none better.

Scott, J. B. *American Addresses at the Second Hague Peace Conference.* Pp. xliii, 217. Boston: Ginn & Co., 1910.

This is a collection of addresses delivered at the Second Hague Conference by three members of the American delegation. They treat immunity of unoffending private property of the enemy on the high seas, the collection of contract debts, arbitration and the international prize court and the establishment of a permanent court of arbitral justice. The discussion is general in its nature and easily understood by the average reader. Three introductory addresses summarize what the author believes are the results of the Second Hague Conference. An appendix gives the various texts of the conventions referred to in the body of the book.

Seligman, E. R. A. *The Shifting and Incidence of Taxation.* Pp. xii, 427. Price, $3.00. New York: Columbia University Press, 1910.

Shackleton, E. H. *The Heart of the Antarctic.* 2 vols. Pp. lxx, 817. Price, $10.00. Philadelphia: J. B. Lippincott Company, 1909.

Solar, Domingo Amunategui. *Las Encomiendas de Indijenas en Chile.* Pp. viii, 476. Santiago: Imprenta Cervantes, 1909.

This first volume may be said to be an introduction to the study of the Spanish colonial system. The bulk of the work is devoted to a detailed analysis of the condition of serfdom to which the Indians were subjected under the Spanish colonial régime. The picture which he draws explains

the failure of the natives to make real industrial progress. In this volume the development of the colonial system is carried to the time of Philip IV. The work, when completed, will constitute an important contribution to Spanish colonial history, and will enable us to form a judgment on the relation of the Spaniards to the native races.

Terry, T. Philip. *Mexico.* Pp. ccxl, 595. Price, $2.50. Boston: Houghton, Mifflin Company, 1909.

This volume meets a need that has been long felt by American travelers. A number of guide-books of Mexico have been published during recent years, but in none of them has the accuracy of treatment been such as to justify the confidence of the traveling public.

The first step in the right direction was taken by Baedekers in publishing a supplement to the second edition of the Guide Book of the United States, which supplement was considerably enlarged in the third edition. The difficulty with the Baedeker supplement was that the space devoted to Mexico was entirely too brief to do justice to the subject. In the present work, however, we have a guide-book constructed on the plan of a Baedeker, and sufficiently detailed to do justice to every phase of the subject.

After the usual introductory sections, containing advice as to the plan of tours, railways, hotels, etc., there follows an excellent historical sketch of the country and its races. The main portion of the work is divided into ten parts, each devoted to a different section of the country. A general map of the republic, a railway map and twenty-five city plans are contained in the work.

The existence of so complete and excellent a guide-book is certain to encourage travel to Mexico. Mr. Terry has done a real service to Mexico in preparing so excellent a guide-book, and he has also placed American travelers under great obligations.

Townshend, A. F. *A Military Consul in Turkey.* Pp. 328. Price, $3.50. Philadelphia: J. B. Lippincott Company, 1910.

Captain Townshend leads us on a long journey through the Asiatic and European provinces. Christian and Turkish rivalries, sordid conditions of life, the babel of tongues, reform schemes, the capitulations, the missionary question and many other interesting phases of the "Turkish Problem" are passed in review. There is little attempt to pass judgment—which is doubtless fortunate—but the author contents himself with describing what he has seen. In spite of the fact that this is a travel book, the personal element is kept strictly in the background. The book gives a vivid picture of Turkish life, always changing, always the same. The outlook for the future is doubtful. The young Turks have only won the first battle. The real test will come when they attempt the control of the nomad tribes of the Asiatic provinces. Even in Europe the movement is bound to suffer many reverses before its ambitious program will even be on the road to realization. Recent events amply justify the doubts expressed.

Transactions of the American Society of Sanitary and Moral Prophylaxis, Volume II. Pp. xvii, 246. New York: Society of Sanitary and Moral Prophylaxis, 1908.

This society is organized for the purpose of popularizing knowledge concerning the character and prevention of social disease. The second volume of its proceedings greatly enhances the effectiveness of its previous work. It contains an excellent group of articles dealing with the various forms of social disease, with their character, effects, cure and prevention. Particular emphasis is laid on the desirability of such education previous to the college course as would give to the adolescent child an adequate knowledge of the character of the problems of social disease with which he will ultimately be called to cope.

Warschauer, Otto. *Zur Entwicklungsgeschichte des Sozialismus.* Pp. xvi, 403. Berlin: F. Bahlen, 1909.

As a readable and unbiased exposition of the "classics" of Utopian Socialism of the nineteenth century this book will serve a useful purpose. Its title, however, is unfortunately ill chosen, leading the reader to expect a study of the evolution of modern Socialism, whereas in fact it is only a literary review and a chronicle of Saint Simonism and Fourierism, and a story of Louis Blanc as a social reformer. The author briefly indicates the influence of Louis Blanc upon Lasalle, hinting evidently at the latter's scheme of co-operative manufacturing associations assisted by the state. But that scheme was conceived by Lasalle merely as a catchword to win over the workmen who followed the leadership of the German apostle of co-operation, Schulze-Delitsch. Its influence upon the Socialist movement was short lived and has left no trace in modern Socialist theory. On the other hand, however, the marked influence of Fourierism upon the ideas of Karl Marx has received no attention from the author.

Louis Blanc's demand of "the right to work," which Professor Warschauer has relegated to history as a dead issue (p. 399), has recently been revived in the advocacy by the British labor party of state insurance against unemployment. The British labor exchanges for the unemployed are pregnant with possibilities of further development which may eventually compel social democracy to revise the orthodox revolutionary view cited by the author, that "in the present state the right to work is nonsense."

Watkins, E. *Shippers and Carriers of Interstate Freight.* Pp. 578. Chicago: T. H. Flood & Co., 1909.

Wellman, F. L. *Day in Court.* Pp. 257. Price, $2.00. New York: The Macmillan Company, 1910.

The following subjects are treated: "Advocate and Office Lawyer Contrasted," "Physical Endowment," "Mental Endowment," "Educational Qualifications," "Opportunity and Rewards," "Preparation for Trial," "The Court Room," "Art in Selecting the Jury," "Opening of the Jury," "Art in Direct Examination," "Art in Cross-Examination," "Art in Discrediting Documents," "The Summing Up."

This volume deserves more than a mere passing notice. The style is interesting, the treatment of the subject original, and the author speaks from an observation and experience extending over many years of successful practice.

Its perusal, however, will convince the reader that the author has too narrowly limited its scope. It is possible that any one may at some time have his "Day in Court," either as a litigant or as a witness. The book is valuable to the layman, since it contains many useful hints and suggestions as to how a witness should behave upon the stand and, with credit to himself and his cause, undergo the ordeal of a severe cross-examination. It is especially valuable to the young man or woman who contemplates entering or has entered the legal profession, and to the older lawyer it is entirely worth while.

Good, wholesome advice is given to the practitioner concerning the coaching of witnesses: "Put him at ease, don't lead him, don't suggest how the facts ought to be in order to come within the latest decisions." How often is this rule violated, if not by the attorney, by the witness himself, with perhaps the connivance of the attorney.

It is well that the author decries some of the practices too common at the bar and which cannot be condemned too severely, notwithstanding such a distinguished lawyer as Rufus Choate indulged in them, such as flirting with the jury during the trial of a case.

Williams, H. S. *Alcohol, How it Affects the Individual, the Community and the Race.* Pp. viii, 151. Price, 50 cents. New York: The Century Company, 1909.

Individual efficiency is curtailed, and the working life shortened, by the use of alcohol. The community suffers from alcohol because families are broken up, children are forced into dependency, and home life and parental care made impossible. The race is injured by alcohol because race continuity is broken and race progress retarded. The author has given a sane presentation of the case against alcohol in a style that is both scientific and popular.

Wylie, J. *The House of Lords.* Pp. x, 179. Price, 1s. London: T. Fisher Unwin, 1909.

One expects from a book with this title a diatribe or a cold, conservative defense. A scholarly historical review exposing the weaknesses and strength of the Lords' position is a surprise. The discussion is fairly impartial, though an enumeration of the unprogressive actions of the upper house in itself makes a formidable indictment. The discussion of the period since the reform bill is disappointingly brief. Mr. Wylie characterizes the present position of the Lords as that of a man deposed as driver of the engine and whose only duty is to put on the brake. It is putting on the brake so hard that the new driver finds "the deadlock so intolerable that there . . (is) danger of his dismissing the brakeman altogether."

Youngman, Anna. *The Economic Causes of Great Fortunes.* Pp. 185. Price, $1.50. New York: Bankers' Publishing Company, 1909.

As typical of those fortunes which have been acquired for the most part through the activities and exertions of the individual, the author considers the economic causes underlying the formation of the Astor and the Gould estates. Although the former was the result of the fur trade and of land speculations and belongs to a much earlier period than does the latter, which is a product of a corporate régime, both can be and are analyzed by the author solely from the standpoint of the operations of the individual. However, she points out that in discussing the fortunes of the last decade it is necessary to examine the character and activities of the group of capitalists of which a man is a member if one is to understand the economic causes which have assisted in the accumulation of his wealth. In this connection, as is to be expected, she deals with the "Standard Oil" and the "Morgan" groups. The concluding chapters are devoted to a discussion of the personal and non-personal factors involved in gain getting and to a very frank argument regarding the amount of social service rendered by a man of great fortune. The book, although containing nothing new or of a startling nature, is a very sane and fair-minded treatment of the subject, and is especially unique in the manner in which the author has grouped the material presented.

Yung, Wing. *My Life in China and America.* Pp. v, 286. Price, $2.00. New York: H. Holt & Co., 1909.

Chinese students in America will find an example to inspire emulation in the life story of Mr. Yung, the first Chinese graduate of Yale. Born of a humble family, the boy came to America through the efforts of a missionary who recognized his unusual ability. His education in this country was obtained by great personal sacrifices, which, however, did not prevent his making an excellent record in college, where he repeatedly carried off prizes in English composition.

Though offered great inducements to take up an American career, he returned to devote his life to the advancement of his native country. He played an important part in the Taiping rebellion and subsequently went on various missions abroad for his country. His most important services of this sort have been in putting an end to the coolie trade to Peru, the promotion of the movement to send Chinese students to be educated in the west and the planning of the present anti-opium measures. The latter action was taken over a quarter of a century before the subject became one of international importance. In spite of the fact that Mr. Yung has advocated reform under many conflicting governments, he has kept public confidence.

REVIEWS

Alexander, De Alva S. *A Political History of the State of New York.* Vol. III, 1861-1882. Pp. iv, 561. Price, $2.50. New York: Henry Holt & Co., 1909.

The third and concluding volume of Congressman Alexander's "History of New York" deals with the stirring years that span the period that opens with "the uprising of the North in 1861" and closes with Cleveland's election in 1882. In this volume the author's treatment presents the same characteristic features, merits and defects, which marked the first two volumes of the work, which were published four years ago.

Chief among its merits should be mentioned the judicious, interesting, and in the main impartial narrative and analysis of political events. This is all the more remarkable and praiseworthy as the author, an active politician, is dealing with a period of comparatively recent date. Another preeminent merit which distinguishes this work and raises it far above the level of a mere state history is the relatively large amount of space given to national politics with a view to showing the intimate connection which existed between the politics of the nation and that of the Empire State. So ample and full is the discussion of national affairs that the title of this volume might fittingly be changed to read "The Political History of the State of New York and of the Nation as Viewed by a New York Politician." The mere enumeration of the names of some of the politicians of New York, more than a score in number, who also attained prominence in national affairs during this period, would suffice to indicate the close connection between the political history of New York and that of the nation, and the action and reaction of the one upon the other. This comprehensive treatment is the most important and commendable characteristic of the work.

As was pointed out in the review upon the earlier volumes,[1] it is apparent that Dr. Alexander is thoroughly impressed with the transcendent importance of the rôle played by a few great men. In fact, he has subscribed to the view "that the history of a state or a nation is largely the history of a few leading men." It is, therefore, the careers of a few great leaders and their ambitious rivalries rather than the history of parties or policies with which he is principally concerned. The contests within the party for leadership, as that between Thurlow Weed and Horace Greeley, Reuben E. Fenton and Roscoe Conkling in the Republican party, and the rise of Horatio Seymour and Samuel J. Tilden successively to leadership in the Democratic party, are presented with a wealth of interesting detail.

Moreover, just as in the earlier periods, so in the two decades covered by this volume, there are "two controlling spirits" and two great party leaders that occupy the center of the stage at one time and contend for political mastery, namely, Conkling and Tilden, the leaders of the Republican and Democratic parties respectively. It is with the career of these two leaders that the greater portion of the volume deals. This fact clearly

[1]See ANNALS, vol. xxix, pp. 228-230.

reveals the point of view of the author and indicates that the limitations and shortcomings of his treatment are largely due to the undue emphasis placed upon the career of the individual.

Dr. Alexander presents many excellent pen portraits and characterizations of the leading politicians. His account of the rise and operations of the Tweed ring and its final overthrow is especially well done, as is also that of the schism in the New York Republican party and the strife which followed between the "Stalwarts" and "Half-breeds," and the resulting election of Cleveland as governor.

Only occasionally does the author's political bias portray itself. He has made excellent and discriminating use of the newspapers and other contemporary literature, and the exact citation of his sources and the handling of secondary but important details in the footnotes is commendable. His style is clear, interesting and vigorous, occasionally perhaps a trifle too vigorous to suit the purist, as he some times lapses into colloquial English, as when he states that "Weed wabbled in his loyalty" (p. 85), "The Tilden managers shiver," and "threatened them with heart-failure" (p. 343). Also some of the striking page captions suggest the head lines of a yellow journal, as the following examples will demonstrate: "Lincoln's Iron Nerve" (p. 105), "A Bunch of Bad Men" (p. 177), "A Blow Below the Belt" (p. 369), "The Fate of Old Dog Tray" (p. 387), "Conkling Down and Out" (p. 464). An excellent index to the three volumes concludes the work.

So satisfactory in general is this history of New York, that we would express the hope that Dr. Alexander may be led to continue his study and add a fourth volume to the series covering, let us say, the two decades since 1882, the date of the close of his last volume.

HERMAN V. AMES.

University of Pennsylvania.

Barker, J. Ellis. *Great and Greater Britain.* Pp. ix, 380. Price, $3.00. New York: E. P. Dutton & Co., 1910.

The appearance of a volume dealing with some of the more important British national and imperial problems is especially timely, but this book does not, however, deal extensively with the particular issues raised by the recent political agitations in the United Kingdom. The volume attempts to forecast the future of Britain: whether it is to be continued greatness or decay. The consideration of this question involves a discussion of the large problems confronting British interests, as, for example, naval and military policies, industry, unemployment and physical degeneration, foreign policy and the question of the colonies. The chief emphasis is laid on the necessity for military and naval efficiency, nearly half the book being devoted to the discussion of those subjects from various points of view.

In general the book is good, in that it presents more or less clearly some of the serious problems which the future holds for British rule. Yet in many respects the book hardly fulfils the expectations of the reader. For

example, the question of the British colonies is vitally important in the future of Britain, and should properly receive careful consideration. It is true that the author has included a chapter on "Will the Colonies Secede?" but instead of discussing the colonies, the condition in them and their relations to the empire, the entire chapter of more than twenty pages is devoted to a rehash of the causes leading to the loss of the American colonies, after which the chapter ends with the somewhat inane question, "Will history repeat itself?" Again, the average reader can be only wearied by the long recital of the virtues of Cromwell's army, under the caption, "The Model Army of England," and even more so by the long drawn out discussion of the collapse of France in 1870 and its lesson to England. These two chapters are accorded seventy full pages, whereas the great questions of British industry, labor, emigration and poverty receive a scant twenty-five.

Less harping on the importance of readiness for war and a greater appreciation of problems of more immediate significance would have added materially to the value and interest of the book.

WALTER S. TOWER.

University of Pennsylvania.

The Cambridge Modern History. Volume XI. *The Growth of Nationalities.* Pp. xxxix, 1044. Price, $4.00. New York: The Macmillan Company, 1909.

This volume of the Cambridge Modern History covers approximately the years from 1845 to 1871, "an epoch of violent international disturbance, interposed between two generations of almost unbroken peace." It is the period marked by the upheavals of 1848, the subsequent reaction till 1859, and the decade of struggle which culminated in the unification of Italy and the consolidation of Germany; twenty-five years of epoch-making history, whose events are of much more than usual significance. The editors and authors had therefore an excellent opportunity; they had to deal with forces and events of a very positive character, and in several cases at least with the most important historical phenomena of the nineteenth century.

Aside from the topics that would necessarily find a place in a volume on this period, we note the commendable introduction of studies on the patriotic and nationalistic literature of the different peoples. Thus we have "German Literature, 1840-1870," by K. Bruell; "The National Spirit in Hungarian Literature," by A. B. Yolland, Professor of English Literature at the University of Budapest; "The Reaction Against Romanticism in French Literature, 1840-1871," by Professor Emile Bourgeois; "The Literature of the *Risorgimento* and After, 1846-1870," by C. Segré, Professor in the University of Rome; "National Influences in Bohemian and Polish Literature;" "Dano-Norweigian Literature, 1815-1865," and "Russian Literature, 1800-1900." Less directly connected with the nationalist movement in Europe are the chapters on "British Free Trade and Commercial Progress," on "The Indian Mutiny and British Colonial Affairs," and on "The Awakening of Japan."

Like the other volumes of the Cambridge Modern History this is the

product of collaboration, twenty-six authors in all contributing, among them a number of distinguished foreign specialists. Professor Emile Bourgeois and M. Albert Thomas do the sections on France, Professor Masi, of the University of Florence, those on Italy, and Professor Oeschle, of Zurich, the chapter on Switzerland. On German affairs the editors obtained the co-operation of Professor Meinecke, of Freiburg; Professor Friedjung, of Vienna, and Dr. Roloff, of Berlin. The senior editor, Mr. Ward, also contributes two good though somewhat detailed chapters on "Reaction in Germany and Austria, 1848-1849." The work by Dr. Roloff naturally excites especial interest since it deals with "Bismarck and German Unity." Unfortunately the attitude of the writer is so markedly Bismarckian that there is frequently not sufficient critical discrimination. On the whole, however, this would not be a fair criticism. Bismarck's own account of his motives and actions, as given us in his "Thoughts and Recollections," is usually subjected to the critical test of other and more reliable evidence, though the author finds it hard to approach the subject from any but the great chancellor's point of view. By way of illustration may be cited the discussions on the preliminaries of peace after Konigrätz (pp. 454-456). Less critical is the treatment of the Ems Dispatch. Here Bismarck's account of the incidents connected with the waving "of the red rag before the Gallic bull," and its importance as a factor in precipitating the Franco-Prussian War is accepted without modification (p. 463). The chapter by Professor Friedjung on the conditions in Germany between 1812 and 1862 shows greater maturity; it constitutes one of the best treatments in English of this somewhat distracting and difficult subject. The military side of the Franco-German War is admirably treated, especially for the layman, by a specialist, Major F. Maurice, of the general staff. Especially worthy of note is the lucid account of the great flanking movement by the Germans, which cut off the French retreat from Metz, and of the enveloping movement at Sedan.

Among the other chapters, one by H. V. Temperley, of Peterhouse, on "The New Colonial Policy," is suggestive, and like the contribution by W. F. Reddaway on Scandinavia, both interesting and scholarly. The volume contains the usual index and the detailed and somewhat hopeless bibliography characteristic of the whole work.

W. E. Lingelbach.

University of Pennsylvania.

The Catholic Encyclopædia. Vols. I-VII. Pp. lxxxv, 5623. Price, $6.00 each. New York: Robert Appleton Company, 1907-1910.

A full and accurate work of reference in English on the Catholic Church has long been a desideratum. Up to the present time English readers have been obliged either to search through technical works on theology or to content themselves with what was to be found in Addis and Arnold's "Catholic Dictionary," an excellent work, but one whose brief space

compelled the omission of many topics and the summary treatment of others. The present encyclopædia, which will be completed in fifteen volumes of about 800 pages each, will remedy these defects and has the further advantage of being prepared by specialists in the various fields. Compared with the other two great works of reference on the church, Hergenröther's "Kirchenlexicon," Catholic, and Herzog's "Realencyclopädie," Protestant, it presents certain marked differences. It is more comprehensive in the range of subjects treated, in the matter of religious statistics and the present status of Catholic institutions and above all it is profusely and excellently illustrated; on the other hand, the historical articles are generally more condensed and as a rule show evidence of less original investigation among the sources.

It would be impossible in the limits of a short review to indicate all the subjects treated in the new encyclopædia. Naturally it contains an authoritative statement and discussion of all the doctrines, customs, liturgy and institutions of the church. Articles are found on every country and important subdivision of a country, accompanied by good colored maps indicating their ecclesiastical as well as political geography; on Christian archæology and art; on the various postulates of philosophy, scholastic and modern; on non-Christian religions and the various Christian denominations. One of the valuable features of the work is the attention paid to biography which is very fully represented. Not only do we find, as might be expected, the lives of all important churchmen but also of all Catholic laymen who have achieved anything of importance in art, science or literature. There are, besides, many articles on subjects that could not be regularly classified, such as labor arbitrations, bull-fights (which are strongly defended by a Spanish contributor), alcoholism, etc. Two articles especially instructive to non-Catholics are Addresses, giving the proper form in which to address the various grades of church dignitaries and Abbreviations, containing a list of those employed to indicate the members of the various religious orders and congregations.

The contributors to this great work of reference are drawn from all countries. Americans predominate so far as numbers are concerned, but many of the most important subjects have been assigned to well-known foreign scholars, English, Belgian, French, German, Austrian and Italian. Too high praise cannot be given to the general tone of the whole work. The articles are scholarly, temperate, fair and generally abreast of the most recent research. The bibliographies are useful and some of them remarkably full. Occasional errors naturally have crept in in places, often due no doubt to the necessity of condensation—as where the relations of Charlemagne and Hadrian I are represented as being uniformly cordial, or where the Cluniac monasteries are said to have been from their foundation a close corporation under the absolute control of the Abbot of Cluny, or the ascription of Charles Martel's nickname to his victory at Tours. Of the various articles in these volumes it will cause some surprise to note that those prepared by the Italian contributors are from a scholarly point of view inferior to the others. They are more apt to be controversial and are sometimes lacking in historical sense, as where the origin of the Canons Regular is traced back

to the Apostles, which may be compared with the sounder treatment of the same subject in the article on the Rule of St. Augustine. A similar comparison might be instituted in regard to the story of the discovery of the True Cross. Professor Marucchi in his article on the Cross declares it would be unsound to reject the universal tradition of the church that it was discovered by the mother of Constantine in the year 326, while Professor Kirsch, of Fribourg, in his article on St. Helena dismisses the whole story in a single sentence as a legend. Notwithstanding these and certain other criticisms of detail, it must be said that the Catholic scholarship of the country can congratulate itself on the production of a work of reference that will command universal respect and meet a long-felt want.

A. C. Howland.

University of Pennsylvania.

Churchill, W. S. *Liberalism and the Social Problem.* Pp. xxiii, 414. Price, $1.50. New York: G. H. Doran Company, 1909.

Liberalism is long lived in England even in the form it took in the eighties. Though there is a change in attitude as to some of the great national questions confronting England—notably in an appreciation of the value of the colonies—there is much in these speeches which recalls the attitude of Gladstone and Bright. There is the same confidence in what can be accomplished by representative government, the same belief in free trade and that democracy is a force for peace.

But besides the old doctrines others are advanced which show the new Liberalism in strong contrast to the old. Industrial legislation, labor exchanges and numerous activities outlined in the budget controversy make it interesting to speculate whether the old Liberals would recognize their children. Certainly the taxation schemes, the elimination of the "diseased industries" by the state and a host of other "Liberal" propaganda emphasize how little does a party name always indicate the same thing.

Mr. Churchill's book treats of three subjects: the relation of the present government to the colonies, its social legislation and the budget. A better view of the complicated and to the outsider often conflicting elements of present English politics is hard to find.

Chester Lloyd Jones.

University of Pennsylvania.

Foster, J. W. *Diplomatic Memoirs.* 2 vols. Pp. 672. Price, $6.00. Boston: Houghton, Mifflin Company, 1909.

No one who is interested in the influence of the United States in world affairs can fail to enjoy the story of this one of the longest of American careers in the foreign service. Mr. Foster's experience covers service in Mexico, Russia and Spain; he has served as Secretary of State, as the representative of the

government on various special embassies and as legal adviser to China after her disastrous war with Japan in 1894.

Frank criticism and sincere appreciation of the governments to which he has been accredited mark these volumes. In Mexico, General Foster was our representative during its trying period of regeneration. The work of Diaz in bringing his country to its present place in the family of nations is warmly praised, but the dangers of disregarding the value of training a people in real self-government are also pointed out. In the mission to Spain his familiarity with the Spanish language and character brought to General Foster an intimate acquaintance with the leading statesmen of the peninsula. The chapters covering this period of his career are the most interesting portion of the volumes and give a sympathetic and appreciative estimate of such men as Canovas, Sagasta and Castelar. These missions and an account of the intervening one to Russia occupy the first volume.

The second volume treats mainly of special commissions on which the author served, including reciprocity negotiations, the Bering Sea arbitration, Hawaiian annexation, Canadian affairs and the Second Hague Conference. The discussion of the negotiations between China and Japan brings out much new material valuable for the student of the Far East. There are also excellent character sketches in the chapters "Presidents Under Whom I Served" and "Secretaries of State." These estimates will modify the commonly accepted opinions as to the ability of some of our statesmen. Fish was able but not of the first rank. Evarts was a good lawyer but out of place "in the State Department," and Blaine, though brilliant, had serious faults as a diplomatist. These criticisms are written with a judicial fairness and substantiated by convincing illustration.

It is interesting to read the opinion of an authority of such weight upon the value of a permanent foreign service. General Foster states, "I am a strong advocate for the establishment of a regular career for the diplomatic service—I would have all secretaries of legation enter the service through a competitive examination; continue in office during good behavior; and, as they should prove worthy, have them promoted to ministers. But I doubt whether the time will ever come when our government will think it wise to confine the appointment of ministers and ambassadors entirely to promotions from the posts of secretary."

CHESTER LLOYD JONES.

University of Pennsylvania.

Hedin, Sven. *Trans-Himalaya.* 2 vols. Pp. xl, 875. Price, $7.50. New York: Macmillan Company, 1909.

"Trans-Himalaya" is the narrative account of one of the most important exploring expeditions undertaken in recent decades; an expedition which in results obtained and difficulties overcome deserves to rank with the work of Stanley in Africa. The relatively short time available for the writing of the two volumes—the author confessing that it was done in a little over a hundred

days—made it impossible to include the worked-out results of much of the scientific observations, those being reserved for a later work. This fact, however, does not prevent the inclusion of such an impression of what those scientific results are as to satisfy the average individual.

The volumes are essentially a running narrative of the events incidental to the author's journeys from Simla, through two years of wandering in Tibet and back to the starting point. In much of the book the text very evidently is simply a direct transcription from the explorer's daily journal, since trivial and irrelevant items are often found interspersed with the details of important investigations and discoveries. Yet it must be admitted that this evidence of literal transcription of events just as they came to Hedin is one of the chief factors in giving a strong fascination to the whole account.

It is entirely beyond the possibility of a short review to set forth the many results of the expedition as revealed in the "Journal," but in general they may be summarized as sufficing to fill in accurately large sections of the map of Asia, heretofore left blank or guessed at. Material changes in certain aspects of the map of Central Asia will be necessary when these scientific observations are fully worked out. In accomplishing his purpose, Hedin not only had to overcome constant obstacles put in his way by native officials, but also was forced to run grave dangers of personal injury. In fact, the relations between explorer and native officials is not the least interesting thread of the narrative, for it was only through the exercising of unflagging persistence, tact and indomitable courage, that he managed to accomplish anything.

WALTER S. TOWER.

University of Pennsylvania.

Jevons, W. Stanley. *Investigations in Currency and Finance.* Pp. xxvi, 347. Price, $7.50. New York: The Macmillan Company, 1909.

All students of economics will welcome the appearance of a second edition of Jevons' Investigations in Currency and Finance, the first edition of which has been out of print for about five years. In his introduction to the first edition, written in 1884, Professor Foxwell, commenting upon the late publication of these essays in book form (some of which were at that time twenty years old), said that the appearance of the volume could hardly have been more opportune, for never had there been more general attention directed to the subjects of which they treat than at that time. This statement is probably even more true for 1910 than it was for 1884. Mr. Jevons referred to the papers as falling into two groups, "the first comprising Papers I to VIII, treating of prices, commercial fluctuations, crises, etc.; while the second, comprising Papers IX to XIV, treats more strictly of currency . . ." The great increase in the world's gold production in recent years, with its effects upon prices, interest rates, and general commercial and social

conditions, is renewing the problems created by the Californian and Australian gold discoveries of a little over a half century ago, to which over forty per cent of this book is devoted, and toward the solution of which Jevons contributed so much.

Americans at the present time are greatly interested in the subject of currency and banking reform. One of the most serious defects in our present currency system, and one to which the National Monetary Commission is now devoting much attention, is its inelasticity, or irresponsiveness to seasonal and other variations in the demand for money. Along this line Jevons' essay On the Frequent Autumnal Pressure in the Money Market and the Action of the Bank of England has become a classic.

The second edition of this book differs from the first principally in being somewhat abridged; the fifty-two page bibliography has been omitted, as likewise the large historic diagram, and the diagram of Bank of England accounts. Some minor corrections have been made, and the figures for one of the charts have been recalculated; otherwise the text is unaltered.

E. W. Kemmerer.

Cornell University.

Korkunov, N. W. *General Theory of Law.* Translated by W. G. Hastings. Pp. xiv, 524. Price, $3.50. Boston: Boston Book Company, 1909.

In his endeavor to establish a true conception of law, the author reaches the conclusion that law is an order established by men as a rule for their mutual relations. Juridical norms, unlike scientific norms, are conventional. Morality discovers the criterion for the evaluation of the interests of the individual; law settles the principles of the reciprocal delimitation of the conflicting interests of different individuals.

The influence of German writers on *Rechtsphilosophie,* to whose works there are frequent references, appears in the assertion that the subjective conception of law, not destructible by positive law, is as essential to the juridical life, as religious sentiment to religion and conscience to morality. Yet it would seem that this is valued only as an influence in determining what the law will be, for it is rejected as a source of law because it is no index of the obligatory character of law.

Within the definition of positive law as the rules set and enforced by society,—custom, judicial practice and legislation are deemed the only true sources of law. The relation between these sources is inadequately developed. With respect to custom, while admitting it is the primitive form of positive law, the author takes a position midway between that of Austin and the writers of the historical school and holds that it becomes juridical only when to its observance is added the consciousness of its obligatory character. He finds difficulty in establishing judicial decision as an independent source of law, for it presupposes existing custom or legislation which is obligatory. He cannot admit the power of a court to decide according to its own will, but

finds some measure of creative activity in its power to add to the unconscious observance of a habit the consciousness of its utility and to develop out of legislative enactments a logical unity not inhering in the varied and possibly conflicting statutes. The basis for the obligatory character of legislation is found in the fact that it is set up by organs of power which can constrain individuals by force to submission. Yet custom is deemed capable of being law in spite of a legislative prohibition to the contrary,—but this, only where the opinion that the legislation is unjust is shared by everybody, *including the tribunals.*

So in effect the author puts himself in accord with that definition of law as the rules enforced in courts of justice. In spite of occasional leanings towards historical and metaphysical theories, he is more closely akin to the analytical jurists than he seems willing to confess. The work is to be commended for its critical review of the salient doctrines of continental, and more especially, German jurists, its masterly annihilation of the *Naturrecht* theories, and its crispness of diction and clarity of thought which render it free from the tediousness of most philosophical expositions of law.

THOMAS REED POWELL.

University of Illinois.

Tolman, W. H. *Social Engineering.* Pp. viii, 384. Price, $2.00 net. New York: McGraw-Hill Book Company, 1909.

Were it not for the sub-title of this book, "A record of things done by American industrialists employing upwards of one and one-half million of people," one might easily be misled as to its contents. The work is not a survey of the social field with a view to the establishment of certain changes of structure which would naturally be the function of the social engineer. On the contrary, it is a cyclopedia of those isolated, detached and somewhat miscellaneous efforts of large employers individually to better the conditions of their own groups of employees, without regard to the conditions of others. To this spirit of co-operation of employers and employees the author has given the name mutuality.

To illustrate what may be accomplished by this method he has collected a large mass of useful information which is alike valuable to the industrialist and to the student. He illustrates the value of making experiences rather than theories the basis of reforms. He shows that practical sagacity does not wait to begin the task of social betterment until a universal scheme has been devised by which all maladjustments may be at once corrected. His optimistic conclusion, is that mutuality as exemplified in his numerous illustrations amply repays the employer for all its costs and pioneers the way for a gigantic scheme of social engineering which will ultimately include in its benefits all the other millions employed in social production.

J. P. LICHTENBERGER.

University of Pennsylvania.

Trevelyan, G. M. *England in the Age of Wycliffe.* Pp. xvi, 380. Price, $2.00. New York: Longmans, Green & Co., 1909.

The popularity of this book, originally composed as a dissertation presented in competition for a fellowship at Trinity College, Cambridge, has been due no less to its lucid style and clear presentation than to its sound scholarship. That it has attained its end in depicting English political and religious life in the later fourteenth century to the general reader, as well as to the specialist, is attested by the numerous editions called for since its first appearance ten years ago. The first edition left the press in February, 1899, and was followed in June of the same year by a second. This was reprinted in January, 1900. A third edition appeared in 1904, with a reprint in 1906, and now the fourth edition has recently come from the press.

The new editions have introduced but few changes in the text, which stands practically as first written with the exception of certain alterations in style, the correction of a few positive errors and some modifications in the treatment of the Peasants' Rising of 1381, due to a higher appreciation of the authority of an anonymous chronicle which had been treated with some suspicion in the first edition. The chief criticisms to which Trevelyan's book has been subjected in the reviews have been his survey in chapters four and five of the condition of the Church in England in the fourteenth century, which has been variously pronounced too favorable and too severe. This, in itself, is a testimony of its fairness, and he has made no alterations in the present edition, on the ground that having in later years devoted himself to other fields of history he has not had the time to devote to the necessary study of the sources in order to correct or confirm his former judgment. The period covered in "The Age of Wycliffe" is from 1376 to 1399, with an additional chapter touching the later history of Lollardry, down to the Reformation. This last chapter will prove to many readers the most interesting and important of the book.

A. C. Howland.

University of Pennsylvania.

Woodruff, C. R. (Ed.). *Proceedings of the Cincinnati Conference for Good City Government and the Fifteenth Annual Meeting of National Municipal League.* Pp. vi, 487. Philadelphia: National Municipal League, 1909.

The volume containing the proceedings of the Fifteenth Annual Conference of the National Municipal League presents an inspiring picture of the growth of civic effort in the United States. Such a volume as this cannot help but renew the faith and hope of those who may have become skeptical of the future of democratic institutions in the United States. Foreign observers have often pointed out to us that in no other country of the civilized world is so much unselfish effort put forth. If any further proof of this fact were necessary, one need but read the contents of this volume. There is noticeable throughout the papers presented, and especially in the admirable summary of the secretary of the league, Clinton Rogers Woodruff, Esq., a desire for

constructive effort rather than for destructive criticism. The character of the papers presented gives ample proof of this fact.

Of special value at these meetings is the series of round-table conferences, which serve as a kind of national clearing house, to which the experience of all sections of the country is brought. Three such round-table conferences were held at the Cincinnati meeting; one on franchises, a second on methods of municipal improvement and a third on the short ballot.

The volume contains a number of excellent papers on "Problems of Police Administration" and an illuminating discussion on the same subject, which was participated in by Professors Shepherd, Chadsey and Dunn, and Messrs. E. J. Ward, A. Leo Weil and Fred Tuke.

L. S. Rowe.

University of Pennsylvania.

INDEX OF NAMES

ABBREVIATIONS—In the Index the following abbreviations have been used: *pap.*, principal paper by the person named; *b.*, review of book of which the person named is the author; *r.*, reviewed by the person named.

INDEX OF SUBJECTS

[Titles of articles are printed in small caps.]